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IN THE

Supreme Court of the United States

October Term, 1974

No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

vs.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor.

Petition for a Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

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vs.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor.

Petition for a Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

Francis Leo Cappaert, Marilyn I. Cappaert, and others, your petitioners, pray that a writ of certiorari issue to review the judgment of the United States Court of Appeals for the Ninth Circuit, entered in the above-entitled case on December 4, 1974.

Opinion Below.

The opinion of the court below (Appendix A, pp. A1-A16) has not yet been reported.*

*All of the Appendices to the present petition are separately bound as a matter of convenience.

Jurisdiction.

The judgment of the court below (Appendix B(1), p. B1) was entered on December 4, 1974. A timely petition for rehearing was denied on January 31, 1975 (Appendix B(2), p. B2). The jurisdiction of this Court is invoked under 28 U.S.C. §1254(1).

Questions Presented.

1. Whether the severance by Congress of all land and non-navigable water on the public domain, which made all such water subject to the laws of the several arid-land states, may be nullified by automatically attaching to every setting aside of public lands an implied reservation of all underground water underlying such lands, for all federal purposes whensoever authorized.

2. Whether a proclamation setting aside public land can properly be construed to reserve all underground water underlying such land, including that derived from distant sources, for purposes not recognized by Congress until long after its date.

3. Whether, where public land was set aside in 1952 for national monument purposes under authority of an act for the preservation of antiquities passed in 1906, and thereafter, under legislation first enacted in 1966, such land is deemed primarily valuable for protecting an endangered species of fish, all of the underground water reaching the national monument from many miles distant may be held reserved for the latter purpose, where the operation of such reservation substantially damages farm land miles away, where the endangered species legislation expressly disclaimed rights to water, and where state law since 1939 had declared that beneficial rights in underground water could only be acquired by proceedings pursuant thereto.

Statutes Involved.

The state and federal statutes involved in this case are set forth in Appendix D, pages D1-D8.

Statement.

This was an action by the United States to enjoin petitioners' pumping of underground water essential for the operation of their large farm and cattle ranch. The complaint alleged that such pumping endangered the continued existence of pupfish in an underground pool many miles distant from petitioners' property. Relief was granted in the view that the setting aside, as part of an existing national monument, of the public domain in which the pool was located, operated as a reservation of all underground water for miles around, for purposes not authorized by Congress until more than a decade after the land in question was set aside.

As will appear below, the pool was reserved in 1952 under the 1906 act for the preservation of antiquities; Congress first legislated for the protection of endangered species in 1966; pupfish were first declared an endangered species in 1970; water and land on the public domain had been recognized as separated under Acts of Congress from 1866 to 1877; in 1913 Nevada had provided that all water whether above or below the surface belonged to the public; and this was followed in 1939 by further Nevada legislation providing that underground waters were subject to appropriation only under the provisions of state law.

A. The Cappaerts' Ranch.

"The Cappaerts' ranch consists of 12,000 acres, of which 4,000 acres are in cultivation. The ranch, which represents an investment of more than 7 million dollars,

has an annual payroll of more than $340,000 and employs more than 80 people. Between 1700 and 1800 head of cattle are fed on the ranch." (Opinion below, Appendix A, p. A2.) The record further shows that the Cappaerts' crops include wheat, barley, alfalfa, and Bermuda grass. [1972 Tr. 313, 314, 323, 324.]

Title to most of the ranch was obtained by petitioners' predecessors in interest prior to 1900, in consequence of selections originally made by the State of Nevada. Title to some of the land was conveyed by patents issued from 1916 to 1951. In 1969, the Cappaerts acquired over 5600 additional acres pursuant to an exchange of lands with the United States. [1972 Ex. C1-C10; 1972 Tr. 210-215, 249-273, 301-302, 310-311.]

In making up its appraisals prior to that exchange, the United States considered the availability of water on the land to be traded to petitioners. [1972 Tr. 221-222.] In consequence of concern expressed by the National Park Service that the use of water by the Cappaerts within one mile of Devil's Hole might lower the water level therein, land within that distance from Devil's Hole was excluded from the exchange. [1972 Tr. 218-220, 300.]

The land acquired by the Cappaerts in the exchange constitutes the southeast portion of their ranch, and is the best land therein. It is the only portion of the ranch that shows a profit, and hence it carries all the rest. [1972 Tr. 314, 321-322.]

B. Devil's Hole and the Pupfish.

"Devil's Hole, a part of the Death Valley National Monument, * * * consists of a 40-acre tract in which there is a deep limestone cavern.

At the bottom of the cavern there is a pool about 65 feet long, 10 feet wide, and more than 200 feet deep. There are steep rock walls on three sides of the pool, but on the fourth side there is a sloping rock shelf on which algae grows. * * *

"The Devil's Hole pupfish [*Cyprinodon diabolis*] live in this pool. These pupfish evolved after the Death Valley Lake system dried up, isolating this species of fish from its ancestral stock. The pupfish population varies from 200 in the winter to 800 after spawning in the spring and depends for its survival on the sloping rock which provides food and a spawning ground. The Devil's Hole pupfish are less than one inch long and do not exist anywhere else in the world." (Opinion below, Appendix A, p. A2.)

Death Valley National Monument was first created in 1933, and then enlarged in 1937. (Proc. No. 2028, Feb. 11, 1933, 47 Stat. 2554; Proc. No. 2228, Mar. 26, 1937, 50 Stat. 1823.) On both occasions, the Proclamation declared that the withdrawal being made was effected under the 1906 Act for the protection of American antiquities. (Act of June 8, 1906, c. 3060, 34 Stat. 225, now 16 U.S.C. §§431-433; Appendix D, pp. D1-D2.)

Pursuant to a third proclamation reciting the identical statutory authority, the 40-acre tract containing Devil's Hole—the area now in controversy—was in 1952 added to and reserved as a detached unit of the Death Valley National Monument. (Proc. No. 2961, Jan. 17, 1952, 66 Stat. c. 18, 17 Fed. Reg. 691; Appendix C, pp. C1-C3.)

Unauthorized persons were expressly warned in that 1952 Proclamation "not to appropriate, injure, destroy, or remove any feature of this addition to the monument and not to locate or settle on any of the lands thereof."

Nothing was said in the 1952 Proclamation about water rights, surface or underground.

The only mention therein of "a peculiar race of desert fish" occurs in the fourth of five preambles. The present record shows that the sponsor of the Devil's Hole reservation, Professor Carl Hubbs, "came up with the idea of pointing out the travertine deposit as a means of getting Devil's Hole set aside as part of Death Valley National Monument", inasmuch as such areas could not be created for endangered species. [1972 Tr. 154-155.]

Professor Hubbs himself stated publicly [1972 Tr. 195, 196]:

> "The first step towards habitat protection in this area was the establishment in 1952 of Devil's Hole as part of Death Valley National Monument. Interestingly, this was done ostensibly because of the unique travertine limestone formations, but not to preserve *Cyprinodon diabolis,* the unique fish inhabitant."

The first Act of Congress for the preservation of endangered species dates from October 15, 1966 (Pub. L. 89-669, 80 Stat. 926). Its Section 4(i), 80 Stat. at 929, now 16 U.S.C. §668dd(i) (Appendix D, p. D5) provided that—

> "Nothing in this Act shall constitute an express or implied claim on the part of the Federal Government as to exemption from State water laws."

This 1966 legislation was supplemented three years later by the Endangered Species Conservation Act of [December 5] 1969 (Pub. L. 91-135, 83 Stat. 275), and thereafter, late in 1973, both measures were in large part superseded and partially repealed by the Endangered Species Act of [December 28] 1973. (Pub. L. 93-205, 87 Stat. 884, 16 U.S.C. §§1531-1543.) But the repealer provision of the 1973 Act, §14, left untouched §4(i) of the 1966 measure, just quoted.

Devil's Hole pupfish, *Cyprinodon diabolis,* were first declared an endangered species on October 13, 1970. (35 Fed. Reg. 16047; 50 CRR, Part 17, Appendix D.)

The record shows that in Devil's Hole, lower than the sloping rock used for spawning, there are also three somewhat similar rocks below the surface that are also used by the pupfish, who can be found on all of them. During censuses taken in 1972 and 1973, there were more pupfish on the lower shelves than on the shelf near the surface. [1973 Tr. 135, 235-236.]

C. The Underground Water; Effects of Pumping.

The water under both the Cappaerts' ranch and Devil's Hole is collected in a large underground basin that extends over an area of 4500 square miles, underlying which there is a limestone aquifer. Some of the water comes from more than 70 miles away. [1972 Tr. 76-83.]

Any substantial pumping anywhere within the 4500 square mile aquifer will in time affect the water level in Devil's Hole. [1972 Tr. 86-88, 114-115.] The precise effect of such pumping, as the present record shows, cannot be accurately predicted even by expert hydrologists. [1972 Tr. 68-69, 115-116, 120-121, 318-320.]

A recorder in Devil's Hole measures its water level continuously; all such levels are calculated as to distance below a copper washer installed there in 1962. Hence "3.7" means a water level 3.7 feet below the marker. [1972 Tr. 21-22; 1973 Tr. 109.]

> "Between 1962 and 1968 the average water level was 1.2 feet below the marker. In 1968, after the Cappaerts began to pump, the summer water level"—they pump only from March to October—"steadily decreased: in 1970 to 3.17 feet below the marker; in 1971 to 3.48 feet and in 1972 to 3.9 feet. At these water levels large areas of the critical rock shelf are exposed. At 3.6 feet below the marker, 42 per cent of the shelf is exposed, and at 3.7 feet the exposure increases to 55 per cent. The shelf exposure decreases the algae production and limits the spawning area which in turn reduces the Devil's Hole pupfish's chance to survive." (Opinion below, Appendix A, p. A3.)

The Cappaerts' wells numbered 1, 2, 3, 4 and 6 are located on land obtained by their predecessors in title prior to 1900. [1972 Ex. D1-D11, E1-E13, F1-F23, G1-G26 H1-H6, I.] Their wells numbered 5, 16 and 17 are located on tracts obtained in the 1969 exchange with the Government. [1972 Tr. 255-257.]

If the Cappaerts are unable to pump their wells numbered 1, 2 and 17, they will be forced to close down the southeastern portion of their ranch—its only profitable part—and all that is now planted there will be lost. [1972 Tr. 321-322.]

D. Rulings Below Affecting the Water Level.

The district court's preliminary injunction, entered on June 5, 1973, required the Cappaerts to limit their pumping so that a 3.0 feet level would be attained in the Devil's Hole pool. This was modified by the court of appeals, on August 20, 1973, to require only a level of 3.3 feet, that court saying that "there is little reason to believe that the present order we now direct will result in the extinction as a species of the pupfish in Devil's Hole."

The Cappaerts appealed the preliminary injunction, as did the State of Nevada, which had been permitted to intervene as a party.

Following argument, the court of appeals on January 24, 1974, remanded the case for entry of a final judgment; such a judgment was entered by the district court on April 9, 1974, again ordering a pool water level of 3.0 feet.

Once again, petitioners and the intervenor appealed; once again, the court of appeals modified the final judgment below to permit the Devil's Hole water level to remain at 3.3 feet. It then proceeded to determine the appeals, but without further briefing or argument.

The final judgment of the court of appeals, entered on December 4, 1974, affirmed the district court's fixing of the 3.0 feet level, but remanded the case for that court "to determine whether, on the facts developed during the pendency of this appeal, the lower water level [3.3 feet] may be adequate to preserve the pupfish". (Appendix A, pp. A16-A17.)

Following denial of a timely petition for rehearing (Appendix B(2), p. B2), a motion for stay of mandate was filed with the court of appeals; that motion was granted while the present petition was passing through the press.

REASONS FOR GRANTING THE WRIT.

The dramatic aspects of this case, human and legal alike, must not be permitted to obscure the controlling circumstance that the ruling below nullifies hitherto settled doctrines of water law in every one of the arid-land states, all of whom depend for their very existence on an assured water supply, and whose aggregate extent constitutes well over one third of the entire nation's area.[1]

The dramatic human feature of the present litigation is that it does not involve, as supposed below, a contest between crass and unfeeling developers whose mercenary motivations impinge upon a rare living species struggling for survival; rather, it concerns the competing claims of two equally endangered species, Devil's Hole pupfish on one hand, individual farmers on the other. The Secretary of the Interior determined in 1970 that the pupfish were endangered; the *Statistical Abstract of the United States, 1974,* disclose (pp. 592, 596, 597) that individual farmers are not only endangered, they are actually disappearing at a rapid rate, and have been since 35 years earlier. In 1935, the country's farm population was 32,161,000; by 1970 it had fallen to 9,712,000, a decline of 70 per cent. In 1959, there were 3,236,000 individual farm operators; ten years later there were only 1,983,000, a decline of nearly 40 per cent.

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[1]The arid-land states are Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. See *California Power Co. v. Beaver Cement Co.,* 295 U.S. 142, 155-156; Act of March 3, 1877, c. 107, 19 Stat. 377, as amended, now 43 U.S.C. §323 (Appendix D, p. D4). The aggregate area of those 13 states, 1,335,465 square miles, amounts to 44.18% of the area of the 48 continental states (3,022,260 square miles), and to 36.98% of the area of all 50 states (3,615,122 square miles). *World Almanac 1975,* pp. 709, 712.

The dramatic legal feature of this case is that the court below, by treating as simultaneously enacted every statutory provision now rearranged in the United States Code, has given retroactive effect to statutes subsequently passed, and has moreover completely overlooked the vital disclaimer of water rights written into the later Congressional enactments.

Neither of the foregoing factors, it should be needless to say, establish the significance of the ruling below for purposes of review. Rather, the factor that imperatively requires scrutiny by this Court is the incalculable harm that this ruling threatens to wreak upon the Western third of our nation. For, by unwarrantably expanding the doctrine of implied reservation of water rights, the court below has virtually nullified the long line of decisions here that recognize and give effect to the Congressional severance of land and water rights on the public domain wherever the arid-land doctrine of prior appropriation holds sway, and where the common law rule of riparian rights has been advisedly rejected.

First. By a series of enactments in 1866, 1870, and 1877, now set forth as amended in 43 U.S.C. §§321, 323, and 661 (Appendix D, pp. D2-D5), Congress effected a severance of all non-navigable waters on the public domain from the land itself, and made such waters subject to local law. The classic exposition of what was done appears in *California Power Co. v. Beaver Cement Co.,* 295 U.S. 142, decided in 1935.

Inasmuch as the teaching of that case was wholly disregarded below, quotation from the opinion appears justified (295 U.S. at 162, 163-164):

> "* * * Congress intended to establish the rule that for the future the land should be patented sepa-

rately; and that all non-navigable waters thereon should be reserved for the use of the public under the laws of the states and territories named. * * * If it be conceded that in the absence of federal legislation the state would be powerless to affect the riparian rights of the United States or its grantees, still, the authority of Congress to vest such power in the state, and that it has done so by the legislation to which we have referred, cannot be doubted.

* * *

"* * * following the act of 1877, if not before, all non-navigable waters then a part of the public domain became *publici juris,* subject to the plenary control of the designated states, including those since created out of the territories named, with the right in each to determine for itself to what extent the rule of appropriation or the common law rule in respect of riparian rights should obtain. * * * The Desert Land Act does not bind or purport to bind the states to any policy. It simply recognizes and gives sanction, in so far as the United States and its future grantees are concerned, to the state and local doctrine of appropriation."

A few years later, the Court in *Ickes v. Fox,* 300 U.S. 82, 95, pointed out that by the Desert Land Act of 1877,

> "if not before, Congress had severed the land and waters constituting the public domain and established the rule that for the future the lands should be patented separately. Acquisition of the government title to a parcel of land was not to carry with it a water-right; but all non-navigable waters were reserved for the use of the public under the laws of the various arid-land states."

Once again, in 1955, the Court repeated that

> "the Desert Land Act severed, for purposes of private acquisition, soil and water rights on public lands, and provided that such water rights were to be acquired in the manner provided by the law of the state of location." *Federal Power Comm'n v. Oregon,* 349 U.S. 435, 448.

By 1913 Nevada had enacted a comprehensive water code for surface water, which established a systematic and orderly procedure for procuring appropriative water rights; the pertinent provisions of that code, now set forth in ch. 533 of the Nevada Revised Statutes (N.R.S.), appear in Appendix D at p. D7. Thereafter, following this Court's decisions in *California Power Co. v. Beaver Cement Co.,* 295 U.S. 142, and in *Ickes v. Fox,* 300 U.S. 82, both *supra,* Nevada in 1939 enacted a similar code for underground water; this is now ch. 534, N.R.S., and its pertinent sections appear in Appendix D, pp. D7-D8.

It is not disputed that the United States has never availed itself of those or any other provisions of Nevada law to establish its right to the beneficial use of any underground water beneath Devil's Hole, nor that the waters now in question are plainly non-navigable.

Nonetheless, by reason of the ruling below, the United States has now been held entitled to all such underground water, inhibiting farming operations in an area potentially 4500 square miles in extent. This result follows from a vastly and in our view improperly expanded concept of the implied reservation doctrine, the notion that when the United States sets aside any public land, it impliedly reserves, for all purposes, whether then or only long afterwards authorized by Congress, not only every drop of underground water

underlying the land so set aside, but also all other underground water that may be hydraulically connected therewith, regardless of source or quantity.

If indeed the implied reservation doctrine had such an unlimited scope, then the severance of land and water and the subjection of water to state law, enacted by Congress from 1866 to 1877 and repeatedly recognized by this Court, would, very obviously, be completely nullified. For then the implied reservation doctrine would join together what Congress had advisedly put asunder.

Second. Actually and properly, the implied reservation doctrine has a far more limited scope. It was first formulated in a case involving Indians, *Winters v. United States,* 207 U.S. 564. There a treaty had effected an exchange of land, and the question was whether the arid land given the Indians pursuant thereto had been conveyed without any appurtenant water rights. Since (p. 576), "By a rule of interpretation of agreements and treaties with the Indians, ambiguities occurring will be resolved from the standpoint of the Indians", the Court construed the exchange to carry with it a reservation of water rights.

A similar result was reached in *Arizona v. California,* 373 U.S. 546, 598-599, where the Court held that when Congress created certain Indian reservations on the Colorado River—incidentally a navigable stream—it intended to reserve enough river water to irrigate the land on those reservations.

There, as in another aspect of the same case (p. 601), the Court proceeded on the footing that it was *intended* to reserve the water along with the land for Indian and other federal purposes; we emphasize the word "intended" in the cited portions of the Court's opinion.

In two more recent cases (*United States v. District Court of Eagle County,* 401 U.S. 520; *United States v. District Court for Water Div. No. 5,* 401 U.S. 527), all that was decided was that the United States had consented to be sued for adjudication of water rights pursuant to the terms of the so-called McCarran amendment, 43 U.S.C. §666. Reservation of water by the United States was assumed, and the Government was told that the scope of any such reservation was a federal question, reviewable by this Court following final adjudication by state courts. But neither opinion reflects the slightest consideration, much less decision, of the head-on conflict between the reservation doctrine and the subjection of non-navigable water to state law pursuant to Congressional mandate, as the latter was construed in *California Power,* 295 U.S. 142, *supra,* and in the cases following it.[2]

In any event, even assuming that an implied reservation of water can be spelled out of an intent clearly manifested when the public land in question is set aside, that touchstone of intent in this case would require a result directly opposite to the one reached below in the present case.

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[2]*State of Nevada v. United States,* 165 F.Supp. 600 (D. Nev.), relied on below (Appendix A, p. A6), which involved rights to underground water for a naval ammunition depot, a tract over which Nevada had ceded exclusive jurisdiction several years before its 1939 act relating to underground water (Appendix D, pp. D7-D8), may perhaps be explained on the footing of intent. But its authority is weakened by the circumstance that the judgment therein entered, adverse to Nevada, was affirmed on the wholly different ground that there was no jurisdiction to entertain the action. 279 F.2d 699 (C.A. 9).

Tweedy v. Texas Co., 286 F.Supp. 383 (D. Mont.), likewise relied on below (Appendix A, p. A6), can best be explained as another instance of protecting rights originally appertaining to Indians. On any other footing, that case, like the ruling now sought to be reviewed, runs directly counter to the rationale of the *California Power* (295 U.S. 142) line of cases here.

Third. Under accepted standards of textual interpretation and statutory construction it is simply impossible to find, as the court below did, any intent in the 1952 Proclamation (Appendix C, pp. C1-C3) to reserve for the preservation of pupfish all of the underground water seeping for many miles around into the pool on the 40-acre tract that was alone set apart thereunder.

1. To begin with, that Proclamation reserves only "the remarkable underground pool known as Devil's Hole". The Proclamation recites that it is the pool that "is of such outstanding scientific importance that it should be given special protection, and such protection can be best afforded by making the said forty-acre tract containing the pool a part of said monument", *i.e.*, the already existing Death Valley National Monument.

There is nothing in the 1952 Proclamation stating that the pupfish should be given protection; they are mentioned only in the fourth "Whereas" clause of the preamble; and of course it is well settled that, where the body of any document is clear—and there is nothing ambiguous about the 1952 Proclamation—its scope is not varied by anything in a preamble. *Price v. Forrest*, 173 U.S. 410, 427; *Yazoo Railroad Co. v. Thomas*, 132 U.S. 174, 188; *Beard v. Rowan*, 9 Pet. 301, 317.

Indeed, the present record shows that the sponsor of the Devil's Hole reservation announced publicly (1972 Tr. 195, 196) that "this was done ostensibly because of the unique travertine limestone formations, but not to protect *Cyprinodon diabolis*, the unique fish inhabitant."

Thus the sponsor himself recognized that in 1952 national monuments could not lawfully be created to protect endangered species, and that his attempt to do so was an admitted subterfuge.

2. That conclusion is fortified by the declared authority under which the President undertook to act in 1952, namely, the 1906 Act for the preservation of American antiquities, now distributed among §§431, 432, and 433 of 16 U.S.C. (Appendix D, pp. D1-D2.)

We have set out that Act in the original rather than as now found in the Code, in recognition of two settled rules of construction. First, the Code is, by its own terms, only *prima facie* the law (unless actually reenacted as positive law, which is not true of Title 16). 1 U.S.C. §204(a); see *Stephan v. United States*, 319 U.S. 423, 426. Second, in order to ascertain the true intent of Congress, subsequent codification, even when it constitutes positive law, must be disregarded. *Nye v. United States*, 313 U.S. 33; *Williams v. United States*, 327 U.S. 711.

We cannot forbear to assert that both of these fundamental canons of construction were disregarded below.

Once the 1906 Act is looked to, it becomes more than ever plain that it refers to objects of antiquity, not to living fish; for, very obviously, the latter are not suitable for what that Act contemplates, viz., "permanent preservation of public museums".

Moreover, the House Report on the 1906 Act wholly negatives the notion that any reservation thereunder should automatically include underground water for miles around. To the contrary, it expressly stated (H.R. Rep. No. 2224, 59th Cong., 1st sess.) that "The bill proposes to create small reservations reserving only

so much land as may be absolutely necessary for the preservation of these interesting relics of prehistoric times."

The underground pool, as a "unique subsurface remnant of the prehistoric chain of lakes which in Pleistocene times formed the Death Valley Lake System", is undoubtedly as much an object of unusual scientific interest as the Grand Canyon, as to which see *Cameron v. United States*, 252 U.S. 450, 455. It may well qualify as an object of antiquity. But the first authority for governmental efforts to protect living things is found in the acts for the preservation of endangered species, the first of which dates from 1966. No such authority existed in 1952.

3. We have shown above, pages 6-7, that there were three statutes for the protection of endangered species, enacted respectively on October 15, 1966, December 5, 1969, and December 28, 1973.

But for the ruling below, we would be unable to understand how anything in any of those enactments could possibly, under any theory other than the naked fiat of *ipse dixit*, affect the scope of a proclamation promulgated in 1952.

Even more remarkable than the Ninth Circuit's finding in such later legislation matter enlarging the terms of the earlier proclamation was its failure to find the provision of the later 1966 Act that expressly disclaimed the effect which it proceeded to read into that proclamation.

Section 4(i) of the first endangered species act of 1966 (80 Stat. at 929, 16 U.S.C. §668dd(i); Appendix D, p. D5) specifically states:

> "Nothing in this Act shall constitute an express or implied claim on the part of the Federal Government as to exemption from State water laws."

Yet that is precisely the effect that the court below gave to the endangered species legislation, on which it relied to reach its result. For it is plain that, once effect is given to the governing water laws of the states, see page 13, *supra*, the United States never acquired any water rights to the underground water at Devil's Hole for any purpose whatsoever.

We note once again that the repealer provision in the latest statute, Section 14 of the Endangered Species Act of 1973, did not extend to §4(i) of the 1966 Act, just quoted.

4. Interestingly enough, when petitioners' 1969 exchange of land with the government was in process, tracts within one mile of Devil's Hole were excluded because of possible adverse effect on the pupfish there, but no objection was made to the transfer of tracts farther away. [1972 Tr. 215-216, 218-220, 300.] The Cappaerts' wells numbered 5, 16, and 17 are located on land that was traded in 1969 [1972 Ex. C1], "subject to any vested and accrued water rights". But the United States in 1969 made no claim to any such rights on lands more than a mile distant from Devil's Hole. Nor were Devil's Hole pupfish declared an endangered

species prior to October 13, 1970. (35 Fed. Reg. 16047.)

5. We mention, simply to show that it has not been overlooked, Section 1 of the 1916 Act creating the National Park Service, now set out in 16 U.S.C. §1 (Appendix D, p. D6), which indeed provides that "the fundamental purpose" of national parks and monuments is "to conserve the scenery * * * and the wild life therein", and which was in consequence relied on by the court below. (Appendix A, pp. A6-A7.)

Of course, the creation of the National Park Service was intended to continue, through centralized administration, existing protection of bears and bison, deer and wildcats, and all other fauna, in national parks existing in 1916. Of course, similar protection was to be extended to new national parks thereafter formed. But in construing the scope of a proclamation issued in 1952 under authority of an act dated 1906 and never amended, it is not helpful to look to the generalized provision of a measure establishing a new agency, whose duties, then and in the future, would include the operation of many varied areas, including among others national parks, national monuments, and national historical areas, each of which represents a different public interest warranting protection.[3]

Fourth. It is appropriate to add two thoughts.

1. The threat of the implied reservation doctrine, as now applied by the court below virtually without limitation, upon land development in the arid western

[3]It is proper to point out that much of the confusion in the reasoning of the opinion below stems from the circumstance that most of its statutory citations are to "U.S.C. (1974)", without any indication of the date that the provision in question was originally enacted.

third of the country, is a serious one. As the State Engineer of Wyoming recently told the National Water Commission, "The potential impact of the Reservation Doctrine on our state is significant. At its extreme it could seriously damage existing water users, and as a minimum it creates a cloud over future water development which needs to be removed." Quoted in Moses, *Federal-State Water Problems,* 47 Denver L. J. 194, 195 (1970).

This is particularly true when, as here, underground water is in issue. As of 1963, one-fifth of the nation's entire water needs were met from underground sources, and this proportion was projected to reach one-half in the foreseeable future. And, in the semi-arid West, underground water demands and reliance are even greater. See *Appropriation and Colorado's Ground Water: A Continuing Dilemma?* 40 U. Colo. L. Rev. 133 (1967).

It is therefore unnecessary to resort to hyperbole, even in the slightest degree, to demonstrate the far-reaching effect—and significance—of the ruling below.

2. Petitioners are not insensible to the national interest in protecting and preserving endangered species. But, if they are required to contribute to such protection at the cost of substantial damage to their own lands and livelihood, then they submit that they are entitled to compensation for all such contributions. They rely on the principle enunciated by Mr. Justice Brandeis for a unanimous Court in *Louisville Bank v. Radford,* 295 U.S. 555, 602, which requires only minimal paraphrase to be fully applicable here:

> "* * * the Fifth Amendment commands that, however great the Nation's need, private property

shall not be thus taken even for a wholly public use without just compensation. If the public interest requires, and permits, the taking of property of individual farmers in order to protect the continued existence of pupfish located many miles away, resort must be had to proceedings by eminent domain; so that, through taxation, the burden of the relief afforded in the public interest may be borne by the public."

Conclusion.

The ruling below adversely affects one-third of the nation. This petition for a writ of certiorari should therefore be granted.

Respectfully submitted.

SAMUEL S. LIONEL,

MARCH 1975.

800 First National Bank Building,
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Las Vegas, Nevada 89101,
Counsel for the Petitioners.

Service of the within and receipt of a copy thereof is hereby admitted this .... day of March, A.D. 1975.

Supreme Court, U. S.
FILED
MAR 6 1975
MICHAEL RODAK, JR., CLERK

IN THE

Supreme Court of the United States

October Term, 1974

No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

vs.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

APPENDICES TO PETITION FOR WRIT OF CERTIORARI.

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APPENDIX A.

Opinion of the United States Court of Appeals, for the Ninth Circuit.

United States Court of Appeals, for the Ninth Circuit.

United States of America, Plaintiff-Appellee, vs. Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, Individuals, and Spring Meadows Ranch, Defendants-Appellants. State of Nevada, ex rel. Roland D. Westergard, State Engineer, Intervenor. No. 74-1690.

United States of America, Plaintiff-Appellee, vs. Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, Individuals, and Spring Meadows Ranch, Defendants. State of Nevada, ex rel. Roland D. Westergard, State Engineer, Intervenor-Appellant. No. 74-2186.

OPINION

Appeal from the United States District Court for the District of Nevada.

Before: CARTER and CHOY, Circuit Judges, and SOLOMON,* District Judge.

SOLOMON, Judge:

Pupfish (cyprinodon diabolis) live in Devil's Hole, in the Death Valley National Monument in Nevada. They are a unique and endangered species. In an action filed by the United States (Government) to protect these fish, the district court limited the amount of water which the owners of a nearby cattle ranch may pump. The Cappaerts, owners of the ranch, and the State of Nevada, which intervened on the side of the Cappaerts, appeal.

---

*The Honorable Gus J. Solomon, Senior United States District Judge for the District of Oregon, sitting by designation.

The Cappaerts' ranch consists of 12,000 acres, of which 4,000 acres are in cultivation. The ranch, which represents an investment of more than 7 million dollars, has an annual payroll of more than $340,000 and employs more than 80 people. Between 1700 and 1800 head of cattle are fed on the ranch.

The Cappaerts drilled wells and pump groundwater[1] on their land for irrigation. Devil's Hole, a part of the Death Valley National Monument, is located within three miles of several wells on the ranch. Devil's Hole consists of a 40-acre tract in which there is a deep limestone cavern. At the bottom of this cavern there is a pool about 65 feet long, 10 feet wide, and more than 200 feet deep. There are steep rock walls on three sides of the pool, but on the fourth side there is a sloping rock shelf on which algae grows. This pool is part of the 4,500 square mile groundwater system from which the Cappaerts pump their water.

The Devil's Hole pupfish live in this pool. These pupfish evolved after the Death Valley Lake System dried up isolating this species of fish from its ancestral stock. The pupfish population varies from 200 in the winter to 800 after spawning in the spring and depends for its survival on the sloping rock shelf which provides food and a spawning ground. The Devil's Hole pupfish are less than one inch long and do not exist anywhere else in the world. They have been designated an endangered species under the Endangered Species Act of 1973, 16 U.S.C. § 1533 (1974), 50 C.F.R. § 17.

The water level in the pool is measured from a copper washer which the U.S. Geological Survey placed on

[1]In this opinion "groundwater" will be used synonymously with "underground water".

the shelf in 1962. Between 1962 and 1968 the average water level was 1.2 feet below the marker. In 1968, after the Cappaerts began to pump, the summer water level[2] steadily decreased: in 1970 to 3.17 feet below the marker; in 1971 to 3.48 feet and in 1972 to 3.9 feet. At these water levels large areas of the critical rock shelf are exposed. At 3.6 feet below the marker, 42 per cent of the shelf is exposed, and at 3.7 feet the exposure increases to 55 per cent. The shelf exposure decreases the algae production and limits the spawning area which in turn reduces the Devil's Hole pupfish's chance to survive.

On June 5, 1973, following a number of hearings, the court granted the Government's motion for a preliminary injunction. This injunction required that pumping on the Cappaert's ranch be limited so that the mean water level of 3.0 feet below the copper washer be attained within 90 days. The court also appointed a special master to control the pumping of other wells in order to reach and maintain this water level.

Among the extensive findings entered by the District Court were the following:

> "9. Through the Presidential Proclamation of January 17, 1952, and its publication in the Federal Register on January 23, 1952 (17 Fed. Reg. 691), the unappropriated waters in, on, under and appurtenant to Devil's Hole were withdrawn from private appropriation as against the United States and reserved to the extent necessary for the requirements and purposes of the said reservation."

[2]The Cappaerts pump water only from March to October. During the rest of the year the water level is higher.

"The purposes of the reservation of Devil's Hole as part of Death Valley National Monument includes the preservation of the pool of water and the preservation of the Devil's Hole pupfish (Cyprinodon diabolis) which live therein."

"14. The natural rock shelf and rubble thereon on which the Devil's Hole pupfish depend for feeding, reproduction and, hence their survival, is nearly 100% covered with water when there is a mean water level of 3.0 feet below the copper washer."

"16. The defendants' pumping of groundwater from wells known as Nos. 1, 2, 3, 4, 5 and 6, and 16 and 17, has drawn water from the springs and underground sources which comprise the supply for Devil's Hole. Because the defendants' wells and Devil's Hole are hydraulically connected, defendants' pumping has caused the water level in Devil's Hole to drop."

"24. In order to maintain a viable continuous population of Devil's Hole pupfish, the water level in Devil's Hole must be maintained above the natural rock shelf and the rubble thereon, which is a minimum of not less than 3.0 feet below the copper washer."

"25. If the water level at Devil's Hole drops below 3.0 feet below the copper washer, the survival of the Devil's Hole pupfish will be threatened, that is, the time of their becoming extinct in the natural evolutionary order will be accelerated."

Both the Cappaerts and the State of Nevada appealed. The Cappaerts also filed motions to modify, pending appeal, the preliminary injunction to permit them to

pump down to the 3.7 feet below the copper washer. Pending appeal, this Court permitted the Cappaerts to pump so long as the water level did not go lower than 3.3 feet below the copper washer.

On January 17, 1952, President Truman, by Presidential Proclamation 2961, withdrew Devil's Hole from the public domain and made it part of the Death Valley National Monument. U.S. Code Cong. & Adm. News, 82d Cong., 2d Sess., Vol. 1 at 964 (1952); 17 Fed. Reg. 691. The Proclamation was issued under the Act for the Preservation of American Antiquities, 16 U.S.C. § 431 (1974), which authorizes the President to declare ". . . objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments. . . ."

The Government contends that the Proclamation, with its express reservation of the Devil's Hole pool and the surrounding land from the public domain, contains an *implied* reservation of enough groundwater to assure preservation of the pupfish in that pool.

The implied reservation of water doctrine originated in *Winters v. United States,* 207 U.S. 564 (1908).[3] The Court in *Winters* held that private landowners could not impair Indian rights in a river which formed one boundary of a reservation, even though the Congressional grant of the land to the Indians had not mentioned water rights. The land reserved for the In-

[3]It was established before *Winters* that the Federal Government has the power to reserve waters which are needed for federal lands and to exempt those waters from appropriation under states laws. *United States v. The Rio Grande Dam & Irrigation Co.,* 174 U.S. 690, 703, 706 (1899); *United States v. Winans,* 198 U.S. 371, 383 (1905). In those cases, however, the Government had expressly dealt with water rights.

dians was arid. The Court held that a grant of water rights must be implied because Congress intended by the grant of land to encourage the Indians to become farmers.

In *Arizona v. California,* 373 U.S. 546, 601 (1963), the Supreme Court extended the reservation doctrine of *Winters* to include waters reserved for federal lands which had been set aside for recreation, wildlife, or forests. This was reaffirmed and extended in *United States v. District Court for Eagle County,* 401 U.S. 520, 522-23 (1971). There the Court held that the Federal Government's authority "to reserve waters for the use and benefit of federally reserved lands . . ." extended to "any federal enclave."

The Cappaerts contend, however, that the doctrine of implied reservation of water does not apply to groundwater, but only to surface water. Although these Supreme Court cases involved only surface water rights, the reservation of water doctrine is not so limited.

Two cases in the Ninth Circuit approved the application of the reservation of groundwater when it clearly appeared that water was needed to accomplish the purpose of the reservation. *Nevada ex rel. Shamberger v. United States,* 165 F.Supp. 600 (D. Nev. 1958), *aff'd on other grounds,* 279 F.2d 699 (9th Cir. 1960); *Tweedy v. Texas Co.,* 286 F.Supp. 383 (D. Mont. 1968).

In our view the United States may reserve not only surface water, but also underground water.[4]

---

[4]It is interesting that Nevada administers its water laws so as to provide that rights to groundwater can be perfected just as readily as rights to surface water.

The Cappaerts assert that the 1952 Presidential Proclamation was intended to preserve only the Devil's Hole pool with its unique limestone formation and not to protect the pupfish, and that therefore there was no implied reservation of groundwater. We reject that argument.

The Proclamation added the Devil's Hole pool to the Death Valley National Monument after reciting:

> "WHEREAS the geologic evidence that this subterranean pool is an integral part of the hydrographic history of the Death Valley region is further confirmed by the presence in this pool of a peculiar race of desert fish, and zoologists have demonstrated that this race of fish, which is found nowhere else in the world, evolved only after the gradual drying up of the Death Valley Lake System isolated this fish population from the original ancestral stock that in Pleistocene times was common to the entire region; and
>
> "WHEREAS the said pool is of such outstanding scientific importance that it should be given special protection. . . ."

The fundamental purpose of the reservation of the Devil's Hole pool was to assure that the pool would not suffer changes from its condition at the time the Proclamation was issued in 1952; that condition included the pool's unique inhabitants, the pupfish. The Proclamation referred to the significant contribution of the pupfish to the scientific importance of the Devil's Hole pool; it implicitly reserved enough groundwater to assure preservation of the pupfish. This conclusion is reinforced by the National Park Service Act, 16 U.S.C. § 1 (1974), which states that "the fundamental pur-

pose" of all national parks and monuments is ". . . to conserve the scenery . . . and the wild life therein . . . by such means as will leave them unimpaired for the enjoyment of future generations."

The Cappaerts contend that under Nevada law they have ownership rights to the underground water which can only be taken from them by eminent domain. They assert that the 1952 Presidential Proclamation attempted to reserve underground water which belonged to their predecessor in interest.

In 1890 and 1892, the State of Nevada by selection acquired fee simple title from the United States Government to the land now owned by the Cappaerts. The Desert Land Act of 1877, 43 U.S.C. § 321 (1964), as construed in *California-Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142, 162 (1935), provides that a transfer of federal land out of the public domain after the date of the Act would not pass title to any unappropriated appurtenant water; water rights would be determined under the law of the state in which the land was located. Because water rights were severed from title in 1877, Nevada got no water rights in 1890 and 1892 when it acquired title to the Cappaerts' land. Therefore, the Cappaerts, as successors in interest, possess no water rights unless they or a predecessor acquired such rights under Nevada law.

The Cappaerts argue that Nevada has adopted the old common law doctrine, established in *Acton v. Blundell*, 12 M. & W. 324 (Exch. Chamber 1843), that a landowner has unlimited dominion over all waters beneath his property. This doctrine, the Cappaerts contend, establishes their water rights as a matter of Nevada law.

The Supreme Court of Nevada in *Jones v. Adams*, 19 Nev. 78, 6 P. 442 (1885), repealed that common law doctrine. The court adopted and applied the theory of prior appropriation[5] as the basis for determining water rights. The doctrine of prior appropriation was reaffirmed in *Reno Smelting, Milling & Reduction Works v. C. C. Stevenson*, 20 Nev. 269, 282, 21 P. 317 (1889).

In 1913[6] and 1939,[7] Nevada enacted statutes providing that, subject to existing rights, all waters in Nevada belong to the public and may be appropriated as provided by statute, and not otherwise. Because no one had previously appropriated water rights through beneficial use, there were no "existing waters" to water on the Cappaerts' land in 1939. Thereafter, water rights could only be acquired, as the statutes provided, by obtaining a permit from the state. N.R.S. 533.325.

The constitutionality of the basic principles of the Nevada Water Code was upheld in *Humboldt Lovelock Irrigation Light & Power Co. v. Smith*, 25 F.Supp. 571

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[5]Under the doctrine of prior appropriation, the first person to possess by beneficial use water for domestic purposes, mining, agriculture, or manufacturing has vested and accrued rights to the water as against any later appropriators. The central principle of the doctrine is beneficial use of water, not land ownership. *Atchison v. Peterson*, 87 U.S. 507 (1874); Powell, Real Property, Vol. 5, ¶734, page 442.

[6]N.R.S. 533.030. Appropriation for beneficial use.

"1. Subject to existing rights, all such water may be appropriated for beneficial use as provided in this chapter and not otherwise."

[7]N.R.S. 534.020.

"All underground waters within the boundaries of the state belong to the public, and, subject to all existing rights to the use thereof, are subject to appropriation for beneficial use only under the laws of this state relating to the appropriation and use of water and not otherwise."

(D. Nev. 1938). Such statutes which abolished common law water rights when the landowner had not made actual beneficial use of the water were held to be a valid exercise of the police power. *California-Oregon Power Co. v. Beaver Portland Cement Co.*, 73 F.2d 555 (9th Cir. 1934), *aff'd on other grounds*, 295 U.S. 142 (1935).

Here neither the Cappaerts nor their predecessors made actual beneficial use of water until 1968. Even if they had some common law claim, they had not established a vested property right in the water based on prior appropriations before Nevada declared that groundwater belonged to the public.

Finally, the Cappaerts contend the Government is estopped from enjoining them from the unrestricted use of their wells located more than one mile from Devil's Hole. In 1969, the Cappaerts and the Government entered into a land exchange. The Cappaerts received land within one mile of Devil's Hole under a patent granting them "all rights, privileges, immunities and appurtenances . . . subject to any vested and accrued water rights for mining, agriculture, manufacturing or other purposes. . . ." The Cappaerts have drilled wells and pumped water on this land.

The Cappaerts admit they had no oral understanding with the Government agents about the water pumping, and they further admit that these agents made no oral representation. The Cappaerts argue, however, that the Government knew at the time of the land exchange that water wells would be drilled, but that the Government specified only that no wells should be drilled within one mile of Devil's Hole. The Cappaerts say that they spent large sums of money in drilling the

wells and in changing their farming operations, relying on their justifiable belief that they could drill wells and pump water without limitation.

This contention lacks merit. Estoppel cannot be invoked against the Government under the facts of this case. The statement of Mr. Justice Black in *United States v. California*, 332 U.S. 19, 40 (1947), is particularly appropriate here.

> "The Government, which holds its interests here as elsewhere in trust for all the people, is not to be deprived of those interests by the ordinary court rules designed particularly for private disputes over individually owned pieces of property; and officers who have no authority at all to dispose of Government property cannot by their conduct cause the Government to lose its valuable rights by their acquiescence, laches, or failure to act."

The rule that estoppel may not be invoked against the Government in cases involving public lands is set out in the excellent opinion of Judge Barnes in *Beaver v. United States*, 350 F.2d 4 (9th Cir. 1965).

Even if the doctrine of estoppel were available against the Government, it could not be applied here because there were no misleading statements or conduct that would give rise to an estoppel between private parties. Here the Government is not asking the Cappaerts to stop pumping but only to limit pumping to the level at which the pupfish can survive.

The State of Nevada, as intervenor, has asserted additional grounds for reversal.

Nevada contends that the federal government is bound by state water laws, and that the rights which

the Government asserts here were not acquired in conformity with state law. Under the Nevada law in effect in 1952, water rights could only be perfected by the issuance of a permit by the State Engineer.

The Government asserts that its rights were established by the implied reservation in the Presidential Proclamation of 1952 and that the United States is not bound by state water laws when it reserves land from the public domain. We agree.

The Desert Land Act of 1877, *supra,* severed soil and water rights on "public lands" and provided that such water rights were to be acquired in the manner provided by the law of the state of location. *California-Oregon Power Co. v. Beaver Cement Co., supra* at 162. But state water laws do not apply to "reservations"—lands withdrawn from the public domain. *Federal Power Commission v. Oregon,* 349 U.S. 435, 444, 448 (1955).

We hold that the Proclamation of 1952, which withdrew the Devil's Hole pool from the public domain, implicitly reserved the waters necessary to sustain the pupfish and legally established the Government's rights as against any future appropriation.

Nevada next contends that the District Court did not have jurisdiction to adjudicate the water rights in this case. Nevada argues that the Government must exhaust state procedures for determining water rights before going to a federal court. There is no merit in this contention.

Nevada relies on the so-called McCarran Amendment, 43 U.S.C. § 666 (1964).[8] That statute waives

[8]"Suits for adjudication of water rights—Joinder of United States as defendant; costs

(This footnote is continued on next page)

the sovereign immunity of the United States in certain cases involving adjudication of water rights. The waiver enables states to adjudicate competing claims for water rights in certain cases in which the United States is one of the claimants.

The McCarran Amendment was enacted to waive sovereign immunity when the United States is a defendant in a state or federal action so that water rights may be fairly and fully adjudicated. Congress did not intend to limit the forums available to the United States as a plaintiff by narrowing federal court jurisdiction. In *United States v. Nevada et al.,* 412 U.S. 534, 538 (1973), the Supreme Court noted that the District Court had jurisdiction to hear a case brought by the United States involving competing claims to water rights.

Nevada also contends that even if the District Court had concurrent jurisdiction with the state courts, the doctrine of res judicata bars the Government from collaterally attacking the decision of a state administrative body—here the State Engineer.

(a) Consent is given to join the United States as a defendant in any suit (1) for the adjudication of rights to the use of water of a river system or other source, or (2) for the administration of such rights, where it appears that the United States is the owner of or is in the process of acquiring water rights by appropriation under State law, by purchase, by exchange, or otherwise, and the United States is a necessary party to such suit. The United States, when a party to any such suit, shall (1) be deemed to have waived any right to plead that the State laws are inapplicable or that the United States is not amenable thereto by reason of its sovereignty, and (2) shall be subject to the judgments, orders, and decrees of the court having jurisdiction, and may obtain review thereof, in the same manner and to the same extent as a private individual under like circumstances:

Provided, That no judgment for costs shall be entered against the United States in any such suit.

Service of summons

(b) Summons or other process in any such suit shall be served upon the Attorney General or his designated representative."

In April, 1970, the Cappaerts applied to the State Engineer for permits to use groundwater from several wells.[9] The United States was not a party to these proceedings, nor was it ever served with process. Nevertheless, employees of the National Park Service learned of the applications through a public notice. A field solicitor for the National Park Service protested the applications because extracting groundwater would lower the water level in the Devil's Hole pool and might endanger the pupfish.

At the hearing held before the State Engineer in December, 1970, the solicitor explained the geological and hydrological bases for the Government's concern. He asked that the Cappaerts' applications be denied or postponed pending further scientific studies. The solicitor did not raise the jurisdictional issue or any of the legal issues which the United States had the right to assert.

In August, 1971, the Government filed this action in District Court to enjoin the Cappaerts from infringing on the Government's water rights at Devil's Hole. Nevada contends that the State Engineer's decision is res judicata and this action is therefore barred. We disagree.

The State Engineer did not have the authority to adjudicate the water rights of the United States because the United States did not waive its sovereign immunity.

[9]Sections 534.050 and 534.080 of the Nevada Revised Statues both provide that rights to use groundwater must be obtained in compliance with Chapter 533. That chapter provides that a person who wishes to appropriate public water for his use must file an application with the State Engineer and must then publish notice of the application. N.R.S. 533.325 and 533.360. Interested persons may protest the application, and the application and protest may be considered at a hearing by the State Engineer. N.R.S. 533.365. The application may be refused if to grant it would be "detrimental to the public welfare". N.R.S. 533.370.

Nevada's reliance here on the McCarran Amendment[10] is misplaced. The McCarran Amendment was enacted to waive the sovereign immunity of the United States in cases in which the presence of the United States as a party was necessary to the full and fair adjudication of competing claims to water rights. The Supreme Court in *Dugan v. Rank*, 372 U.S. 609, 618 (1963), interpreted that statute to waive sovereign immunity only in ". . . a case involving a *general* adjudication of 'all the rights of various owners on a given stream,' . . . ." *See State of California v. Rank*, 293 F.2d 340, 346 (9th Cir. 1961). The Senate Report on the bill which became the McCarran Amendment shows the type of adjudication which was contemplated by Congress. The Report contained the following excerpt from *Pacific Live Stock Co. v. Lewis*, 241 U.S. 440, 447 (1916):

> ". . . All claimants are required to appear and prove their claims; no one can refuse without forfeiting his claim, and all have the same relation to the proceeding. It is intended to be universal and to result in a complete ascertainment of all existing rights. . . ." S. Rep. No. 755, 82d Cong., 1st Sess. 5 (1951).

The proceeding before the State Engineer of Nevada was not a "general adjudication". The United States was not required to appear and prove its water rights to prevent forfeiture of its claims; the water rights of the United States were not in issue. The United States appeared only to explain the factual basis on which it opposed the Cappaerts' applications.

Furthermore, the McCarran Amendment waives sovereign immunity only in cases in which the United States is a defendant and has been served with process.

[10]See Footnote 8, *supra*.

The United States was neither a defendant nor served with process in the proceedings before the State Engineer.

Even if the United States had waived its sovereign immunity, we are not bound to give res judicata effect to the decision of an administrative body in a case of this kind. As the court said in *Grose v. Cohen,* 406 F.2d 823, 824 (4th Cir. 1969):

> "*Res judicata* of administrative decisions is not encrusted with the rigid finality that characterizes the precept in judicial proceedings. . . . Application of the doctrine often serves a useful purpose in preventing relitigation of issues administratively determined, . . . but practical reasons may exist for refusing to apply it, e.g., United States v. Stone & Downer Co., 274 U.S. 225 (1927). And in any event, when traditional concepts of *res judicata* do not work well, they should be relaxed or qualified to prevent injustice. 2 Davis, Administrative Law, § 18.03 (1958)."

Although the State Engineer may have expertise in the administration of Nevada's water laws, there is no evidence that he is qualified to consider or decide the complex issues of federal law involved in this case. The State Engineer's decision is not entitled to res judicata effect in this action.

We affirm the decision of the District Court. The District Court held the water level should be maintained at 3.0 feet below the copper washer in order to preserve the pupfish in the Devil's Hole pool. Pending this appeal, we permitted the Cappaerts to pump as long as the water level did not go below 3.3 feet. We remand this case to the District Court to determine

whether, on the facts developed during the pendency of this appeal, the lower water level may be adequate to preserve the pupfish.

We direct the District Court to retain continuing jurisdiction so that it may promptly act if a change in water level is required to preserve and protect the pupfish in the Devil's Hole pool.

AFFIRMED and REMANDED.

APPENDIX B.

JUDGMENTS BELOW.

1. Judgment of Affirmance.

United States Court of Appeals, for the Ninth Circuit.

United States of America, Plaintiff-Appellee vs. Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, Individuals, and Spring Meadows Ranch, Defendants-Appellants. State of Nevada, ex rel. Roland D. Westergard, State Engineer, Intervenor.

United States of America, Plaintiff-Appellee, vs. Francis Leo Cappaert, et al. Defendants. State of Nevada, ex rel. Roland D. Westergard, State Engineer, Intervenor-Appellant. Nos. 74-1690 & 74-2186, D.C. No. Civil LV 1687.

APPEAL from the United States District Court for the District of NEVADA.

THIS CAUSE came on to be heard on the Transcript of the Record from the United States District Court for the ..... District of NEVADA and was duly submitted.

ON CONSIDERATION WHEREOF, It is now here ordered and adjudged by this Court, that the ..... judgment of the said District Court in this Cause be, and hereby is AFFIRMED AND REMANDED.

A True Copy
Attest 2/20/75
Emil E. Melfi, Jr., Clerk
By /s/ Ray Hewitt
Ray Hewitt, Senior Deputy

Filed and entered December 4, 1974.

2. Order Denying Rehearing.

United States Court of Appeals, for the Ninth Circuit.

Filed: January 31, 1975

United States of America, Plaintiff-Appellee, vs. Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, Individuals, and Spring Meadows Ranch, Defendants-Appellants. State of Nevada, ex rel. Roland D. Westergard, State Engineer, Intervenor. No. 74-1690.

United States of America, Plaintiff-Appellee, vs. Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, Individuals, and Spring Meadows Ranch, Defendants. State of Nevada, ex rel. Roland D. Westergard, State Engineer, Intervenor-Appellant. No. 74-2186.

ORDER

Before: CARTER and CHOY, Circuit Judges, and SOLOMON,* District Judge.

The panel voted to deny both the appellants' and the intervenor-appellant's petitions for rehearing. Judge Choy voted to reject the suggestions for a rehearing en banc, and Judges Carter and Solomon have recommended the rejection of these suggestions.

The full court was advised of the suggestions for an en banc rehearing. No judge has requested a vote on these suggestions for rehearing en banc. Fed. R. App. P. 35(b).

The petitions for rehearing are denied, and the suggestions for a rehearing en banc are rejected.

---

*The Honorable Gus J. Solomon, Senior United States District Judge for the District of Oregon, sitting by designation.

APPENDIX C.

1952 Proclamation Reserving Devil's Hole.

Proclamation No. 2961, January 17, 1952 (66 Stat. c. 18, 17 Fed. Reg. 691) is as follows:

Addition of Devil's Hole, Nevada, to Death Valley National Monument—California and Nevada
By the President of the United States of America

A PROCLAMATION

WHEREAS by Proclamation No. 2028 of February 11, 1933 (47 Stat. 2554), certain lands in California known as Death Valley were set aside and reserved as the Death Valley National Monument for the preservation of the unusual features of scenic, scientific, and educational interest therein contained; and by Proclamation No. 2228 of March 26, 1937 (50 Stat. 1823), the said monument was enlarged by adding thereto certain contiguous lands in California and Nevada; and

WHEREAS there is located outside the boundaries of the said monument but in the vicinity thereof a forty-acre tract of public land in Nevada containing a remarkable underground pool known as Devil's Hole; and

WHEREAS the said pool is a unique subsurface remant of the prehistoric chain of lakes which in Pleistocene times formed the Death Valley Lake System, and is unusual among caverns in that it is a solution area in distinctly striated limestone, while also owing its formation in part to fault action; and

WHEREAS the geologic evidence that this subterranean pool is an integral part of the hydrographic history of the Death Valley region is further confirmed by the presence in this pool of a peculiar race of desert

fish, and zoologists have demonstrated that this race of fish, which is found nowhere else in the world, evolved only after the gradual drying up of the Death Valley Lake System isolated this fish population from the original ancestral stock that in Pleistocene times was common to the entire region; and

WHEREAS the said pool is of such outstanding scientific importance that it should be given special protection, and such protection can be best afforded by making the said forty-acre tract containing the pool a part of the said monument:

NOW, THEREFORE, I, HARRY S. TRUMAN, President of the United States of America, under and by virtue of the authority vested in me by section 2 of the act of June 8, 1906, 34 Stat. 225 (16 U.S.C. 431), do proclaim that, subject to the provisions of the act of Congress approved June 13, 1933, 48 Stat. 139 (16 U. S. C. 447), and to all valid existing rights, the following-described tract of land in Nevada is hereby added to and reserved as a part of the Death Valley National Monument, as a detached unit thereof:

Mount Diablo Meridian, Nevada

T. 17 S., R. 50 E.,
sec. 36, SW ¼ SE ¼.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this addition to the said monument and not to locate or settle on any of the lands thereof.

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have the supervision, management, and control of the lands hereby added to the said monument as provided in the

act of Congress entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (39 Stat. 535; 16 U. S. C. 1-3), and acts supplementary thereto or amendatory thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States of America to be affixed.

DONE at the City of Washington this 17th day of January in the year of our Lord nineteen hundred and fifty-two, and of the Independence of the United States of America the one hundred and seventy-sixth.

HARRY S. TRUMAN

[Seal]

By the President:
Dean Acheson
Secretary of State

NOTE: The only legislation mentioned in the foregoing Proclamation that does not appear in Appendix D, immediately below, is the Act of June 13, 1933, c. 70, 48 Stat. 139, 16 U. S. C. §447. This measure simply extended the mining laws of the United States to the Death Valley National Monument.

APPENDIX D.

STATUTES INVOLVED.

1. Federal Statutes.

(a) *1906 Act for protection of American Antiquities.* Below is set out, as enacted, the Act of June 8, 1906, c. 3060, 34 Stat. 225. It has never been amended, and is now distributed in 16 U. S. C. §§431, 432, and 433.

CHAP. 3060—An Act For the preservation of American antiquities.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who shall appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall, upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court.

SEC. 2. That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects

to be protected: *Provided,* That when such objects are situated upon a tract covered by a bona fide unperfected claim or held in private ownership, the tract, or so much thereof as may be necessary for the proper care and management of the object, may be relinquished to the Government, and the Secretary of the Interior is hereby authorized to accept the relinquishment of such tracts in behalf of the Government of the United States.

SEC. 3. That permits for the examination of ruins, the excavation of archaeological sites, and the gathering of objects of antiquity upon the lands under their respective jurisdictions may be granted by the Secretaries of the Interior, Agriculture, and War to institutions which they may deem properly qualified to conduct such examination excavation, or gathering, subject to such rules and regulations as they may prescribe: *Provided,* That the examinations, excavations, and gatherings are undertaken for the benefit of reputable museums, universities, colleges, or other recognized scientific or educational institutions, with a view to increasing the knowledge of such objects, and that the gatherings shall be made for permanent preservation in public museums.

SEC. 4. That the Secretaries of the Departments aforesaid shall make and publish from time to time uniform rules and regulations for the purpose of carrying out the provisions of this Act.

Approved, June 8, 1906.

(b) *Desert Land Acts.* The Act of July 26, 1866 (14 Stat. 251), July 9, 1870 (16 Stat. 217), and March 3, 1877 (19 Stat. 377), as amended, now appear in pertinent part in 43 U. S. C. §§321, 323, and 661, and provide as follows:

§ 321. Entry right generally; extent of right to appropriate waters

It shall be lawful for any citizen of the United States, or any person of requisite age "who may be entitled to become a citizen, and who has filed his declaration to become such" and upon payment of 25 cents per acre—to file a declaration under oath with the officer designated by the Secretary of the Interior of the land district in which any desert land is situated, that he intends to reclaim a tract of desert land not exceeding one-half section, by conducting water upon the same, within the period of three years thereafter: *Provided, however,* That the right to the use of water by the person so conducting the same, on or to any tract of desert land of three hundred and twenty acres shall depend upon bona fide prior appropriation; and such right shall not exceed the amount of water actually appropriated, and necessarily used for the purpose of irrigation and reclamation; and all surplus water over and above such actual appropriation and use, together with the water of all lakes, rivers, and other sources of water supply upon the public lands and not navigable, shall remain and be held free for the appropriation and use of the public for irrigation, mining, and manufacturing purposes subject to existing rights. Said declaration shall describe particularly said one-half section of land if surveyed, and if unsurveyed, shall describe the same as nearly as possible without a survey. At any time within the period of three years after filing said declaration, upon making satisfactory proof to the officer designated by the Secretary of the Interior of the reclamation of said tract of land in the manner aforesaid, and upon the payment to such officer of the additional sum of $1 per acre for a tract of land not ex-

ceeding three hundred and twenty acres to any one person, a patent for the same shall be issued to him. Except as provided in section 3 of the Act of June 16, 1955, as amended, no person may make more than one entry under sections 321-323, 325 and 327-329 of this title. However, in that entry one or more tracts may be included, and the tracts so entered need not be contiguous. The aggregate acreage of desert land which may be entered by any one person under this section shall not exceed three hundred and twenty acres, and all the tracts entered by one person shall be sufficiently close to each other to be managed satisfactorily as an economic unit, as determined under rules and regulations issued by the Secretary of the Interior.

§ 323. Application to certain States

Sections 321-323, 325 and 327-329 of this title shall only apply to and take effect in the States of California, Colorado, Oregon, Nevada, Washington, Idaho, Montana, Utah, Wyoming, Arizona, New Mexico, and North and South Dakota.

§ 661. Appropriation of waters on public lands; rights-of-way for canals and ditches

Whenever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes herein specified is acknowledged and confirmed; but whenever any person, in the construction of any ditch or canal, injures or damages the possession of any settler on the

public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

All patents granted, or preemption or homesteads allowed, shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by this section. R.S. §§2339, 2340.

Historical Note

R.S. 2339 derived from Act July 26, 1866, c. 262, §9, 14 Stat. 253. R.S. 2340 derived from Act July 9, 1870, c. 235, §17, Stat. 218.

(c) *Pertinent Portion of Endangered Species Legislation.* As the text of the petition indicates, three Acts are in question: (i) Act of October 15, 1966, Pub. L. 89-669, 80 Stat. 926; (ii) Act of December 5, 1969, Pub. L. 91-135, 83 Stat. 275; and (iii) Act of December 28, 1973, Pub. L. 93-205, 87 Stat. 884.

By §12(d) of the 1969 Act, the first five sections thereof plus the first three sections of the 1966 Act, were thereafter to be cited as the "Endangered Species Conservation Act of 1969".

By §14 of the 1973 Act, short-titled the "Endangered Species Act of 1973", the "Endangered Species Conservation Act of 1969", constituted as above, was repealed.

This left untouched §4(i) of the 1966 Act, 80 Stat. at 929, 16 U. S. C. §668dd(i), which provides as follows:

> "Nothing in this Act shall constitute an express or implied claim on the part of the Federal Government as to exemption from State water laws."

The balance of the endangered species legislation still on the books to be found in 16 U. S. C. §§668dd, 668ee, and 1531-1543, is too long for quotation, and is moreover not pertinent to any of the issues presented by the petition.

(d) *Act Creating the National Park Service.* The pertinent portion of §1 of the Act of August 25, 1916, c. 408, 39 Stat. 535, as amended, is now 16 U. S. C. §1, as follows:

> **§ 1. Service created; director; other employees**
>
> There is created in the Department of the Interior a service to be called the National Park Service, which shall be under the charge of a director. The Secretary of the Interior shall appoint the director, and there shall also be in said service such subordinate officers, clerks, and employees as may be appropriated for by Congress. The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified, except such as are under the jurisdiction of the Secretary of the Army, as provided by law, by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

2. State Statutes.

(a) The 1913 Nevada Act for the Adjudication of Water Rights, &c., now ch. 533 of the Nevada Revised Statutes, provides in pertinent part as follows:

> *533.025 Water belongs to public.* The water of all sources of water supply within the boundaries of the state whether above or beneath the surface of the ground, belongs to the public.
>
> *533.030 Appropriation for beneficial use.*
>
> 1. Subject to existing rights, all such water may be appropriated for beneficial use as provided in this chapter and not otherwise.
>
> *533.035 Beneficial use: Basis, measure and limit of right to use.* Beneficial use shall be the basis, the measure and the limit of the right to the use of water.
>
> *533.050 Beneficial use of water declared a public use; eminent domain.* The beneficial use of water is hereby declared a public use, and any person may exercise the right of eminent domain to condemn all lands and other property or rights required for the construction, use and maintenance of any works for the lawful diversion, conveyance and storage of waters.

(b) The 1939 Nevada Act relating to Underground Waters, now ch. 534 of the Nevada Revised Statutes, provides in pertinent part as follows:

> *534.020 Underground waters belong to public; subject to appropriation for beneficial use; declaration of legislative intent.*
>
> 1. All underground waters within the boundaries of the state belong to the public, and subject

to all existing rights to the use thereof, are subject to appropriation for beneficial use only under the laws of this state relating to the appropriation and use of water and not otherwise.

534.080 Appropriation of underground water for beneficial use from artesian or definable aquifer: Acquisition of rights under chapter 533 of NRS; orders to desist; dates of priority.

3. The date of priority of all appropriations of water from an underground source, mentioned in this section, is the date when application is made in proper form and filed in the office of the state engineer pursuant to the provisions of chapter 533 of NRS.

534.100 Recognition of existing water rights; classification of water in definable aquifer or percolating water by state engineer; adjudication of vested underground water rights.

1. Existing water rights to the use of underground water are hereby recognized. For the purpose of this chapter a vested right is a water right on underground water acquired from an artesian or definable aquifer prior to March 22, 1913, and an underground water right on percolating water, the course and boundaries of which are incapable of determination, acquired prior to March 25, 1939. The distinction as to whether water is in a definable aquifer or whether it is percolating water, the course and boundaries of which are incapable of determination, is a matter to be determined by the state engineer.

Supreme Court, U. S.
FILED
MAY 19 1975
MICHAEL RODAK, JR., CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1974

No. 74-1304
74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, et al.,
Petitioners,

vs.

UNITED STATES OF AMERICA

STATE OF NEVADA ex rel. ROLAND D. WESTERGARD,
STATE ENGINEER, *Intervenor.*

Amicus Curiae Brief in Support of Petition for a Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

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I.

INTERESTS OF AMICUS

Arizona, named herein as *Amicus curiae* has, as do all arid western states a system for the administration and determination of water rights. Due in significant part to the security afforded by water rights granted under these systems the arid West has been transformed into an eco-

nomically productive and socially inhabitable region. R. J. Moses Federal-State Water Problems 47 Denver LJ 194, (1970). For example, Arizona's population has almost tripled during the past two decades, principally in the urban areas. Meeting the water demands of the growing population and continuing to sustain the existing irrigated agricultural economy has necessarily resulted in increased pumping from an already overdrafted ground water supply. Arizona's ground water supply is vital to the economy and growth of the state. Indeed, the City of Tucson, population of over 262,000 has no source of water other than ground water. Only 334 square miles of Arizona's almost 114,000 square miles, are water surface. Arizona Interstate Stream Commission, Water Resources, Report (October 1967). Consequently, Arizona's ground water is vital to the state's existence. The annual demand and use of such ground water far exceeds the annual recharge or replenishment. (See Exhibit 1 of Appendix)

It has become apparent in recent years because of the overdraft of ground water that thousands of acres of irrigable land have been forever barred from the cultivation of crops. An overdraft of the state's ground water supply nevertheless continues at an average rate of 2.2 million acre feet per year. Each year more acres of farm land are taken out of cultivation, partly because of declining water levels and because cities such as Tucson, and other users, must retire agricultural uses to sustain current pumping levels for critical domestic and municipal needs.

Privately owned land in Arizona comprises only 16% of the state as opposed to 72% owned by the Federal Government. (See Exhibit 2 in the Appendix). If it were judicially determined by this court that every withdrawal of federal land from the public domain carried with it an implied reservation of sufficient surface water *and ground*

water to satisfy every potentially beneficial use which might thereafter be made of the land, then essentially all water now used on non-federal land in Arizona has been so reserved. If the Federal Government is entitled to exploit water so reserved by implication, Arizona, as presently known, would cease to exist.

If it were held that ground water pumping on non-federal lands must be limited to cause no decline in water levels underlying federal lands then it would be impossible for ground water pumping to continue in the State of Arizona. Nearly all federal reservations in Arizona were created or designated prior to any significant use of pumps. Consequently, almost all rights in ground water in Arizona would be wiped out. The importance of *United States v. Cappaert* is inestimable for the people of Arizona and the arid West. The implications of this decision reach far beyond its factual setting. For example, presently pending in the Federal District Court for Arizona is *United States v. City of Tucson*, Cause No. CIV 75-39 filed February 20, 1975. There the United States on behalf of the San Xavier Papago Reservation claims all surface and ground water rights in the 3,500 square mile Santa Cruz River Basin. (This litigation was based upon, and filed shortly after the decision of the Ninth Circuit court in this matter.) This expanse includes vast acreage of privately owned land stretching from Mexico to Central Arizona. In addition, the United States seeks to enjoin ground water pumping which causes water level decline on the reservation. If such relief were granted the City of Tucson, which has no source of water other than ground water, would cease to exist as would other economic interests in the Basin. Thousands of people in the Santa Cruz Basin would have no source of water and hundreds and thousands of acres of farm land would revert to desert.

This court in *Winter v. United States*, 207 U.S. 564 (1908) and *Arizona v. California*, 373 U.S. 546 (1963), found by implication that the Federal Government had reserved certain amounts of water from stream flow, surface water, at the time the lands were withdrawn from the public domain. These cases did not consider applying the reservation doctrine to underground water supplies. For the lower court to imply that the reservation doctrine applies to underground water, as indicated above would be catastrophic for the State of Arizona and other western states. The far reaching effect of the Ninth Circuit decision merits this Court's consideration. The *Amicus* thus feels compelled to advise this Court of its position in favor of the State of Nevada's Petition for Writ of Certiorari to review the Ninth Circuit decision.

II.
QUESTIONS PRESENTED

This brief is confined to the following issues which Amicus considers to be the most crucial to its interests:

(1) Whether Congress intended under the Act for the Preservation of American Antiquities to vest the President with authority to reserve water for the purpose of protecting an endangered species.

(2) Whether the "reservation doctrine" applies to percolating ground water underlying land adjacent to reserve lands so as to preclude the landowner from pumping water from beneath his land pursuant to his state granted water rights.

(3) Whether the federal government should be barred under the principles of *res judicata* from seeking to adjudicate in a subsequent judicial action issues decided in an

administrative proceeding in which it participated to determine a water rights application before the state engineer from whose order the government failed to appeal.

III.
ARGUMENT

A. Assuming, arguendo, that he intended to do so, President Truman did not have authority under the Act for the Preservation of American Antiquities to reserve waters on lands withdrawn pursuant to the Act for the purpose of protecting an endangered species of desert pupfish.

The scope of the implied reservation doctrine remains undefined leaving many questions unresolved, C. Wheatly & C. Coker, *Study of the Development, Management and Use of Water Resources on Public Land*, 136 (1969). For example one unresolved question is the detailed nature of the showing required to establish an implied intent to reserve waters upon the creation of a reservation. Counsel for the United States in its brief before the lower court advanced the following proposition:

> "In all cases, the test to be applied to determine the existence of federal reserved water rights is whether the previously unappropriated waters are necessary to accomplish the purposes for which the reservation was created."

The government asserts that the mere act of withdrawal automatically results in the reservation of unappropriated waters for the purposes of the reservation. As indicated previously such a broad and sweeping reservation would be disastrous for the state of Arizona.

However, it is submitted that the government's test is improper. Rather, an analysis of the statutory authority for each withdrawal must be made in order to determine the government's reserved rights claims. Such an analysis

would be in accord with the landmark case of *Winters v. United States, supra,* which created the reservation doctrine.

The application of the reservation doctrine is dependent on the assumption that the government intended to reserve *unappropriated water* for the reserved land. Thus, in *Winters v. United States,* this Court ruled that Congress must have intended to reserve rights to water for lands that it set aside by treaty for an Indian reservation, even though it did not expressly provide for them. This intention to reserve water was implied on the basis that it would be unconscionable for the United States to have induced Indians onto a reservation, where they were to settle and develop an agricultural economy without supplying them an adequate supply of water for agricultural and related purposes. However, the special circumstances that may justify an implication of intent to reserve water for the Indians—treaties attempting to convert the Indians from a nomadic to a pastoral life, the doctrine that agreements with Indians are to be construed in favor of the Indians, in acquiring the water and putting it to beneficial use—are not present with respect to other federal establishments. Note, *Water in the Woods: The Reserved Rights Doctrine and National Forest Lands,* 20 Stan. L. Rev. 1187 (1968). A significantly greater showing of an intention to reserve waters for non-Indian lands as opposed to Indian Lands should therefore be required. If this intention is not expressed in the legislation or order authorizing the withdrawal, or if it is not clearly implied from the authorization, then the government should not be deemed to have reserved rights. An analysis of the Act for the Preservation of American Antiquities containing Devil's Hole, and the Act's

statutory background and subsequent executive interpretation clearly discloses that the President had no authority to reserve waters thereunder for purpose of protecting an endangered species of desert pupfish, and that the lower court erred in concluding otherwise.

The Act for the Preservation of American Antiquities passed in 1906 vested the President of the United States with authority to "declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest . . ." and to reserve parcels of land as national monuments "the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected." 34 Stat. 255, 16 U.S.C. S 431-33. There is no evidence whatsoever in the language of the Act to intimate that the President was vested with authority to reserve water as distinct from "parcels of land." Furthermore, the purpose of the Act was to preserve American antiquities of historic and scientific interest. There is absolutely no indication that the Congress intended to vest the executive with authority to make reservations under the Act for the purpose of conservation of wildlife.

The Ninth Circuit accepted the government's argument that Section I of the National Park Service Act of 1916 supports the conclusion that a fundamental purpose of national monuments is to preserve wildlife. The National Park Service Act established the National Park Service to promote and regulate the use of national parks and monuments "by such means and measures as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and wildlife therein and to

provide for the enjoyment of the same by such manner and such means as will leave them unimpaired for the enjoyment of future generations." 39 Stat. 535, 16 U.S.C. S 1.

It is submitted that this language is of little or no relevance in determining the purposes of the 1906 Act in question. It is a general provision establishing a new agency with duties that would include the operation of national parks, national monuments, and national areas, each having a distinct public purpose warranting protection. The language set forth above was merely a summary of these separate purposes. Moreover, whatever the purpose of national monuments, there is no evidence in the National Parks Service Act to support the government's contention as to the basic issue in this case; whether the President was authorized under the Act for the Preservation of American Antiquities to reserve water as distinct from land for the purpose of protecting an endangered species.

The National Parks Service, which has jurisdiction over Death Valley National Monument and therefore Devil's Hole has until now followed the policy that the Parks Service should strictly adhere to state law with respect to the establishment and maintenance of water rights for use on lands under their jurisdiction. C. Wheatley & C. Corker, *Study of the Development, Management, and Use of Water Resources on the Public Lands* 310 (1969). Thus, the following statements were contained in a proposed chapter for a Parks Service handbook:

> "It is particularly important [for Superintendents] to check with the State Engineer, State Water Board or other proper state authority to determine whether a license or permit is required before a well is started." National Park Service, Resources Management Handbook, proposed Ch. 8, S 3 at 4 (Sept. 1967).

Not only does the proposed chapter on water rights for the Park Service handbook emphasize the importance of compliance with state law, but more importantly no reference is ever made to the reservation doctrine or its potential effect upon water rights acquired under state law. C. Wheatley & C. Corker, *Study of the Development, Management and Use of Water Resources on the Public Lands* 311 (1969).

Language of a Congressional act of 1946 also clearly demonstrates that Congress as well contemplated that water rights on Park Service lands were to be acquired by the Service pursuant to state law. It provides as follows:

> Appropriations for the National Parks Service are authorized for—
>
> *(G) Investigation and establishment of water rights in accordance with local custom, laws, and decisions of courts* the acquisition of water rights or of lands or of interest lands or rights-of-way for use and protection of water necessary or beneficial in the administration and purpose of the national parks and monuments. Act of Aug. Ch. 788, 60 Stat. 885 (emphasis added).

Note that there is no mention, or even inference, in the statutes that acquiring water rights pursuant to state law was being done as a comity on the theory that the withdrawal of the lands reserved water not then validly appropriated.

In conclusion, assuming, *arguendo,* that the President intended by the Presidential Proclamation of 1952 to reserve water as well as land for the preservation of an endangered species of pupfish, it is clear that he had no authority to do so under the Act for the Preservation of American Antiquities upon which he relied, or any subse-

quent Congressional act or authorization. The lower court's erroneous conclusion to the contrary presents not only an ominous threat to state granted water rights in waters on or adjacent to the vast national monuments in the West, but also to waters on or adjacent to other reservations where it is likewise evident that Congress did not intend to reserve water for reservation purposes as distinct from land. The Amicus therefore urges this court to review the Ninth Circuit's decision.

B. The "reservation doctrine" should not be extended to apply to percolating ground water underlying land adjacent to reserved lands so as to enjoin the landowner from pumping water from beneath his land pursuant to state granted rights.

1. Overview of facts and law relating to percolating water in Arizona.

To understand the precise nature of the water rights at issue and the effect of the federal government's alleged right to "reserve" percolating ground water regardless of its effect upon state vested water rights it is important to have an overview of Arizona water law.

Subsurface waters are usually categorized as either "underground streams" or "percolating waters." The difference is that an "underground stream" is a definite and defined body or channel of water coming from a known source, whereas "percolating water" consists of excess water from irrigation or rain oozing through the soil from undefined and unknown channels. *Brewster v. Salt River Valley Water Users Assn.*, 27 Ariz. 23, 229 Pac. 929 (1924). A critical identifying characteristic of percolating water is that it is not discoverable from surface indications without excavation. Clark, *Waters and Water Rights,* Vol. 1, p. 326 (1967). The difficulty in ascertaining the source of the water as well as its continuing avenues and channels

sets it apart from well-defined channels of water in terms of formulating a practical and desirable scheme to adjudicate rights therein.

Surface water and underground water which run in definable channels are, under Arizona law, subject to "prior appropriation." However, percolating water is not. See *Maricopa County v. SouthWest Cotton Co.,* 39 Ariz. 65, 2P.2d 369 (1931) and *Bristor v. Cheatham,* 73 Ariz. 228, 240 P.2d 185 (1952), rev'd 75 Ariz. 227, 255 P.2d 173 (1953). In *Bristor v. Cheatham, supra,* the Arizona Supreme Court in a controversial decision squarely faced the question whether percolating water would be subject to the doctrine of prior appropriation. The court ultimately held that the doctrine of prior appropriation was not and never had been the law in Arizona with respect to percolating water and that such a doctrine was not well suited to conditions in the arid Southwest. The court concluded that the Desert Land Act of March 3, 1877 and the subsequent interpretation of the act by this Court in *California-Oregon Power Co. v. Beaver Portland Cement Co.,* 295 U.S. 142 (1935) did not necessarily require that percolating water be subject to the doctrine of prior appropriation. The court pointed out that under both the civil and common law the ground water belonged to the owner of the soil. More importantly, the court stated that the Arizona legislature in 1864 provided a statutory scheme for the appropriation of water in well defined channels whether they be surface or subsurface but provided no such scheme for percolating water. The Arizona Supreme Court relied upon *California-Oregon Power Co. v. Beaver Portland Cement Co., supra,* to reason that since the states were given the unalterable right to devise and implement a statutory scheme for the adjudication of ground water

rights, the legislature could determine which waters are public and subject to appropriation and which are not.

The court went on to hold that the "reasonable use" doctrine would apply to percolating water to the effect that the "owner of lands overlying ground waters may freely, without liability to an adjoining user, use the same without limitation and without liabilities to another owner, providing his use thereof is for the purpose of reasonably putting the land from which the water is taken to beneficial use" (p. 178).

Subsequent to the above decision, the legislature of Arizona created a comprehensive legislative scheme to adjudicate and determine the landowner's rights to drill for percolating water in areas where the water level was so critically low that a modification of the "reasonable use" doctrine was necessary. A state agency was given the power to designate some basins as "critical ground water" areas, and prohibit new drilling therein, with limited exceptions. Arizona Revised Statutes, § 45-301 et. seq., regulating the use of such waters, although considered a part of the landowner's property, was upheld as a proper exercise of the police power of the state, *Southwest Engineering Co. v. Ernst,* 79 Ariz. 403, 291 P.2d 764 (1955). For an excellent and thorough discussion of the history of Arizona water law as well as the adoption of the abovementioned code to regulate ground water, see Mann, *Law and Politics of Ground Water in Arizona,* 2 Arizona L. Rev. 241 (1960).

In brief, after tumultuous controversy over the years, both the legislature and the court of Arizona resolved the question as to what theory of law should apply to percolating water in favor of the "reasonable use" doctrine. The policy underlying this resolution is that the needs of arid Arizona are best met by that doctrine where the landowner

is able to use the water underneath his land without limitations so long as it is put to a reasonable use.

2. This court has not previously applied the reservation doctrine to percolating water.

This Court has never considered whether the reservation doctrine should apply to percolating water. See, *Winters v. United States, supra* and *Arizona v. California, supra.* These decisions deal only with appropriable surface waters. Likewise, the two cases relied upon by the Ninth Circuit, *State ex rel Shamberger v. United States,* 165 F. Supp. 600 (D.Nev. 1958), affirmed on other grounds 279 F.2d 699 (9th Cir. 1960), and *Tweedy v. Texas Co.,* 286 F.Supp. 383 are not binding upon this Court and indeed, were not firm precedent for the lower court's holding. In fact, these cases shed little light on the problem presented because they do not involve an adjacent landowner and his right to pump water pursuant to state law.

There is no logical basis to apply the reservation doctrine to percolating groundwaters when the effect is to destroy property rights to water which have been recognized for years.

3. The reservation doctrine is incompatible with the nature of ground water, particularly in Arizona where such water is not appropriable.

There simply is no basis for the assertion that the federal government via Congress impliedly reserved or will reserve in perpetuity all percolating water underlying land adjacent to the reserved land so as to preclude the landowner from drilling on his own land. The following discussion will point out the legal deficiencies in such an assertion as well as the practical barriers to any reasonable man concluding that Congress so intended.

First, the Desert Land Act should be interpreted as follows: Whereas the courts have held that the Desert

Land Act does not apply to reserved federal property insofar as well-defined surface waters or subsurface water directly underlying the federal land are concerned, the Desert Land Act remains viable in terms of giving states the absolute right to develop statutory or case law with respect to percolating water, especially where that water is not only unappropriated but unappropriable because of its nature. Were this not true, the Act would be a sham because there would be virtually no unappropriated water in the West which the states may conclusively control or define the rights therein. This is because all water is either appropriable water in well-defined channels and most of the latter lies near or adjacent to some federal reserved land in the state of Arizona.

Arizona courts have interpreted the Act to mean that the states would be allowed to pass laws respecting the adjudication of water rights but that it did not require that the doctrine of prior appropriation be applied. This conclusion was supported by this Court's interpretation in *California-Oregon Power Co. v. Beaver Portland Cement Co., supra,* wherein it stated that the Act allows the states to conclude that the waters are public and subject to appropriation and regulation, but "does not bind or purport to bind the states to any policy" (p. 164). Thus, neither the Act nor the decision disturbed the more basic and traditional concept of Arizona law that percolating water belongs to the overlying landowner.

To interpret the Act otherwise would not only be tantamount to erasing from the statutes as well as from the case books, all regulations, and pronouncements with respect to the reasonable use doctrine as heretofore applied in Arizona, as well as in other states where federal conflicts arise, but it would fail to recognize the crucial difference between appropriable well-defined channels of water

and percolating water. The basic concept underlying the reasonable use doctrine as applied to percolating water is that the overlying landowner has an unqualified right to pump water on his land so long as he puts it to reasonable use. This concept is necessitated by the fact that water is scarce and that it is impossible to trace the original source and channel of percolating water so as to apply rules of priority, notice, and the like. Whereas surface water moves rapidly over the stream bed and any interference thereto can affect the downstream user in a short period of time, the pumping of percolating water may not affect the water level on adjacent lands for years and even then possibly imperceptibly.

Thus, where percolating water is concerned, the argument of reserved federal rights does not apply because the doctrine is inherently coupled with the concept of appropriation where the date of first use, notice and priority are fundamental aspects. This Court in *Arizona v. California, supra,* made clear that where water is in a well-defined stream, should a private appropriator's rights vest prior to the setting aside of the federal land, there can be no reservation of superior right. But as to all subsequent appropriations by private landowners, the federal rights are superior even to the extent that the federal use increases without compensation paid to the landowner over the years or completely divests the subsequent appropriator of any rights to the water. Obviously this principle or concept as to the date of private appropriations vis-a-vis date of reservation is not compatible with percolating water, where a state such as Arizona utilizes the "reasonable use" doctrine.

Consider first the situation where a landowner begins pumping water on his land and does so without legal restriction so long as he puts it to reasonable use. Many

years thereafter the federal government reserves adjacent land and asserts that the private landowner must cease pumping because it affects the water level beneath the federal land. The landowner's initial use of the water originated long before the reservation was set aside, yet, because of the slow and untraceable moving of the water the effect of the use does not appear for years. It would be absurd to argue that since the creation of the reservation occurred before the manifestation of the adjacent landowner's use (and prior to the correlating assertion of a federal right) the federal rights are superior.

Consider the second situation where the landowner acquires his land and begins pumping ground water subsequent to the reservation date. His rights to the percolating water underneath his land are now uncertain because his right to continue pumping is always susceptible to divestment by any later assertion by the federal government of its so-called reserved rights. This landowner has never been placed on notice, prior to the decision in *Cappaert v. United States,* that he may be divested of his water rights without compensation. Indeed, the overlying owner may never have had any indication that his use of percolating water affected the federal land.

In short, in a state such as Arizona where certain waters are unappropriable, i.e., no requirement of prior use or governmental approval of use, it is impossible to take the date of reservation and determine who had prior "vested" appropriation rights. The only circumstance where the state statutorily regulates and approves the use of percolating water is where "critical ground water" areas are involved. And even there, if the reservation doctrine were applied, this statutory scheme would become worthless because any determination by the state land department that an applicant may or may not commence new pumping

within those areas would have little effect should the federal government later assert its use of the ground water which is reserved. It is respectfully submitted that neither the Desert Land Act nor this Court's decisions can be interpreted to mean that Congress impliedly reserved all unascertained and unknown percolating water to the derogation and distraction of state law.

Second, sheer practical considerations and factors remonstrate against the government's argument. It is not reasonable to speculate that Congress intended to extend the scope of the doctrine so far. The facts presented in the previous section respecting the water problem in Arizona (intended as an example of such problems found in the various western states), demonstrate the crucial need for effective and consistent legal theories with respect to percolating water. They compel the conclusion that because of the immense acreage of federally owned lands in states, such as Arizona, the potential disruption of state laws and statutory schemes is tremendous should the lower decision stand.

Likewise, the effect on private property owners and municipalities is catastrophic. Over 72% of the land in Arizona is federally owned and reserved. This acreage is comprised of Indian reservations, national forests, national parks and monuments, as well as other types of federal enclaves. Nearly all of the ground water basins over laid by privatley owned land are adjacent to some type of federally reserved land. Hence, an extension of the reservation doctrine to percolating water underlying these lands would permit the federal government to claim superior rights to all such water regardless of the reasonable use to which it is put by the overlying landowner. This would wreak economic havoc upon the State and its citizens. Knowledge of this tremendous impediment

would stifle and possibly preclude future growth and development of the State. Existing rights and past investments worth millions of dollars would be rendered worthless. Cities such as Tucson, which depend upon groundwater, would become ghost towns.

Thus, to engulf already scarce water and the concomitant state-vested rights with the uncertainty of potential, but undefined and unasserted federal rights would be disastrous. Congress never intended this when it passed the Land Act nor when it reserved federal lands. Therefore, this Court should grant the Petition for Writ of Certiorari and review this extension of the reservation doctrine.

C. The United States is barred under the principles of collateral estoppel from initiating a court-action to adjudicate issues decided in a prior state administrative proceeding in which it participated, but from which it failed to appeal.

This Court in *United States v. District Court of Eagle County,* 401 U.S. 520 (1971), established that federally reserved water right claims may be adjudicated within the framework of state schemes. The United States cannot reasonably contend that the state did not have jurisdiction in the prior administrative proceeding by raising the doctrine of sovereign immunity since that doctrine is simply not applicable to the facts of this case. The doctrine provides that the government cannot be sued in its own courts, or in any other, without its consent. Here, the government was not sued, but instead intervened in the proceeding of its own volition to present its case against granting the defendant's application. Thus, the Nevada State Engineer in the administrative proceeding was competent to render a decision binding on all parties as to all matters affecting the defendant's application including the question of a conflicting federally reserved right.

Issues that were or could have been adjudicated in an administrative proceeding have been held barred from being litigated in a subsequent court action, especially where, as here, the determinations are made for a purpose similar to that of court and in proceedings similar to judicial proceedings. *E.g., Magnolia Petroleum Co. v. Hunt,* 320 U.S. 430 (1943); *United States v. Utah Construction Co.,* 384 U.S. 394 (1966); *United States v. William Tablet Co.,* 141 F.2d 141 (7th Cir. 1944). This principal of collateral estoppel has been held applicable even though the aggrieved party fails to appeal the administrative decision. *Paramount Transport System v. Chauffeurs, Teamsters and Helpers, Local 150, et al,* 436 F.2d 1064 (9th Cir. 1971). For the purpose of the rule of collateral estoppel or res judicata, "parties" barred under the rule are not merely those who are named as such in the record and properly served with process, but includes persons who have a direct interest in the subject matter of the action and have a right to control the proceedings, defend, examine witnesses, and appeal if an appeal lies. *E.g., Vane v. Haffberger Co.,* 196 Md. 450, 77 A.2d 152 (1950).

It is submitted that under the above principles the United States is estopped from asserting in this case reserved rights claims determined in the prior state administrative preceeding. Prior to the administrative hearing, the United States filed written protests on the basis that the pumping of the wells would adversely affect the water in Devil's Hole and thus result in harm to the fish living in the pool. This objection was reiterated in detail at the hearing before the State Engineer. President Truman's proclamation and expert testimony on the hydrology of the Ash Meadow area were introduced by the government. The nature, value and extent of the competing interests of

the federal government and adjacent land owners was thoroughly argued during the hearing. As the transcript reveals, the issue of the lowering of the water in Devil's Hole and the effect on the fish therein was thoroughly considered. Although the federal government did not specifically assert an implied reserved water right, the existence of a federal water right was considered, but it was concluded that one did not exist. After the State Engineer rendered his decision granting the applications, all parties were informed that they had thirty days in which to appeal. The United States did not appeal. Approximately six months later the government filed its complaint in this case in the Federal District Court. Allowing the government to thus initiate a judicial action six months subsequent to the administrative determination and after substantial investment by the individual defendant in reliance upon the administrative decision is to clearly violate the principles of collateral estoppel and to make meaningless the administrative order of the State Engineer.

From the earliest times, water law has been state law. The states have systems of water law and procedures adapted to water supply, climate, and demand. The United States does not. The initial forum, therefore, to achieve coordination and accommodation of federal uses with state and private uses is properly the state court, or in the case of Neveda, the administrative adjudication procedure which substitutes in the first instance in place of a court the State Engineer, expert in the area of water use, and from whose order an aggrieved party may appeal to the state courts. The opinion of this court in *Eagle County* case, *supra* supports this position. Furthermore, this Court there set forth the proper method by which the federal

government could obtain review of the state determinations as to its reserved rights claims:

> "*All such questions,* including the volume and scope of a particular reserved right, are federal questions, which, *if preserved,* can be reviewed here after *final* judgment by a Colorado Court." (emphasis added).

It is submitted that the proper remedy of the United States in this case was to appeal the decision rendered in the administrative proceeding to determine the individual defendant's water right application. Holding otherwise, as did the Ninth Circuit, allows the government to have a second independent review of its reserved rights claims in disregard of prior determinations under state laws and procedures. Such a decision can only exacerbate the uncertainties to which the reservation doctrine already subjects state created water rights in the West.

IV.

CONCLUSION

Despite government contentions to the contrary, it should be pointed out in conclusion that this case does not involve the survival of the Devil's Hole pupfish. As pointed out by a leading authority on the reservation doctrine:

> ". . . [T]he reservation doctrine adds nothing to the power of the United States to take and use the water it needs for any constitutional purpose or power. If a constitutionally enacted statute gives an agency of the United States the power to perform a federal function on any federal land in any state, whether public land, reservation or acquired land, and that function requires the use of water or acquisiton of a water right. No theory of federal ownership or reservation is required. The only difference resulting from reliance on the reservation doctrine instead of on a more basic federal power is that in some cases where the water is

> taken from persons who have previously put it to use the United States need not pay for the taking. The reservation doctrine is a financial doctrine and nothing more." F. J. Trelease, *Federal-State Relations in Water Law* 147 M. (1971)

Thus, if the United States determined that the condemnation of the defendant's water rights was necessary in order to preserve the Devil's Hole pupfish, it would have ample power to do so under the Endangered Species Act which empowers the Secretary of the Interior in carrying out the program "to acquire by purchase, donation or otherwise, lands, waters or interests there . . ." 16 U.S.C. Section 1534. Nevada law could not block or limit that acquisition. No reliance on the reservation doctrine would be required. Instead, the government chose to rely on reserved rights claims in the hope that it could avoid paying compensation for the destruction of the defendant's water rights.

If the Ninth Circuit decision is allowed to stand, it will mean that the federal government has succeeded in asserting reserved rights on national monumental lands for a purpose which was not intended by Congress in the legislation providing for such withdrawals, and indeed, which Congress has declared shall not entail reserved rights claims exempt from state water laws. Furthermore, the Ninth Circuit's decision will be authority for the proposition that the reservation doctrine applies to percolating ground waters. If the decision is allowed to stand, virtually all underground water in Arizona will be subject to reservation. State granted water rights will be worthless and Arizona as we know it today will not survive. The uncertainties and limitations placed on the use of water by *Cappaert v. United States* deserve consideration by this court, as its impact upon the state of Arizona and other states is immeasurable.

Finally, the Ninth Circuit's decision will mean that the federal government, contrary to the guidelines set down by this court in the *Eagle County* case, was able to obtain a second independent review of its reserved rights claims in disregard of the determinations of an earlier state administrative proceeding in which it participated and from which it failed to appeal. In view of these implications with respect to state water laws and water rights the Amicus urges this Court to review the Ninth Circuit's decision in this case.

Respectfully submitted,

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(Exhibits Follow)

Exhibit 1

In recent years the average annual water withdrawals in Arizona have been about 7.8 million acre-feet per year, including Colorado River uses. This withdrawal includes a groundwater pumpage of about 4.9 million acre-feet per year, local surface water diversions of about 1.3 million acre-feet per year and diversions from the Colorado River of about 1.6 million acre-feet per year. The net depletion from this total withdrawal is approximately 5.0 million acre-feet per year. (Net depletion refers to the total consumptive uses of water plus other irrecoverable uses and losses.)

The difference between withdrawal and depletion of 2.8 million acre-feet is the non consumed portion of the withdrawal and is the net return flow and/or recharge to the system. From the hydrology of the river basins we can say that along the Lower Colorado River the nonconsumptive withdrawal includes both returns to and recharge along the Colorado River in Arizona, and in the remainder of the state, it is entirely recharge to the groundwater aquifers, and further, that most of the remaining recharge occurs in central Arizona. We should also note that this return flow and/or recharge occurs from both surface water and groundwater withdrawals.

The following tabulation illustrates the details of Withdrawals, Depletion (consumptive use), and Nonconsumptive Withdrawals (return flows and recharge):

Subregional Drainage Area of State	Ground Water Pumpage	Surface Water Diversion	Total
	(thousand acre-feet per year)		
I Withdrawals			
a. Lower Colorado River mainstream drainage area	400	1,650	2,050
b. Little Colorado River drainage area	72	57	129
c. Gila River Drainage Area (central Arizona)	4,400	1,200	5,600
Total Arizona Supply	4,872	2,907	7,779
(rounded values)	4.9 maf	2.9 maf	7.8 maf
II Depletion*			
a. Lower Colorado River mainstream area			920
b. Little Colorado River area			90
c. Gila River Area** (central Arizona)			3,980
Total Arizona Use (depletion)			4,990
(rounded)			5.0 maf
III Nonconsumptive Withdrawals			2.8 maf
a. Lower Colorado River			1.1
b. Little Colorado River			negligible
c. Gila River			1.7

*Includes beneficial consumptive uses plus other vegetal and evaporative uses and losses, etc. (i.e., depletions from canals, laterals, and in-transit losses.)

**Upstream reservoir evaporation of 200 thousand acre-feet is not included in this use.

Groundwater overdraft refers to the excess of groundwater pumpage over recharge to the groundwater basin. In Arizona, most of the groundwater overdraft occurs in the central part of the State. As shown on the preceding tabulation, the average annual groundwater pumpage in this area is about 4.4 million acre-feet and the average annual recharge is about 1.7 million acre-feet. The difference represents the groundwater overdraft of about 2.7 million acre-feet per year.

The groundwater overdraft in the Gila River area can also be developed in another, somewhat independent manner, using average undepleted inflow data for the area. The theory is that the overdraft of groundwater is a direct function of the average undepleted water supply (the annual replenishable supply or "safe yield" from surface water diversion and groundwater pumpage) and the current depletion requirements.

Item	Million acre-feet per year
Average undepleted water supply	+1.80
Present depletion requirements*	—4.20
Present subregional outflow	—0.10
Average overdraft	2.50

*Including reservoir evaporation of about .2 million acre-feet.

This amount compares favorably with the previously developed estimate of 2.7 million acre-feet per year.

A few notes on groundwater pumpage and overdraft are now in order. The computed overdraft is based on average levels of withdrawal, depletion, and subsequent recharge; thus, changes in any of these quantities could alter the magnitude of the overdraft. The Central Arizona Project will bring in surface water supplies to replace some of the groundwater pumpage, thereby reducing the groundwater overdraft while the recharge remains essentially the same.

Finally, these groundwater estimates reflect those areas in the State that have agricultural and urban development, and do not account for the effects of additional ground-

water withdrawals in other areas of the State that have not yet experienced development. Additional studies to further evaluate the total groundwater resources in Arizona are in progress.

(Data derived from Lower Colorado Region Comprehensive Framework Study, Appendix V, Water Resources, June, 1971)

Exhibit 2

Land Ownership in Arizona

Federally owned	45%
Federal trust (Indian reservations)	27%
State	13%
Private	15%

Source: Arizona State Land Department, *55th Annual Report,* 1967 p. 27.

Supreme Court, U. S.
FILED
AUG 22 1975
MICHAEL RODAK, JR., CLERK

APPENDIX.

IN THE

Supreme Court of the United States

October Term, 1975
Nos. 74-1107, 74-1304

No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

vs.

UNITED STATES OF AMERICA.

No. 74-1304

STATE OF NEVADA, *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Petitioner,

vs.

UNITED STATES OF AMERICA.

On Writs of Certiorari to the United States Court of Appeals for the Ninth Circuit.

Petition for Certiorari in No. 74-1107 Filed March 6, 1975.
Petition for Certiorari in No. 74-1304 Filed April 19, 1975.
Certiorari in Both Granted June 23, 1975.

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APPENDIX.

IN THE

Supreme Court of the United States

October Term, 1975
Nos. 74-1107, 74-1304

No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

vs.

UNITED STATES OF AMERICA.

No. 74-1304

STATE OF NEVADA, *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Petitioner,

vs.

UNITED STATES OF AMERICA.

On Writs of Certiorari to the United States Court of Appeals for the Ninth Circuit.

1. Relevant Docket Entries, U. S. Dist. Ct., D. Nev.

United States of America v. Francis Leo Cappaert *et al.* Civil LV-1687.

Aug. 18, 1971	Filed complaint and motion for preliminary injunction.
Sept. 2, 1971	Filed stipulation; order continuing hearing
Jan. 3, 1972	Filed stipulation; order setting hearing vacated
Apr. 6, 1972	Filed stipulation; order setting hearing vacated
May 2, 1972	Filed amended complaint and amended motion for preliminary injunction
June 28, 1972	Filed answer to amended complaint
June 30, 1972	Filed motion to intervene as a defendant on behalf of State of Nevada ex rel. Roland D. Westergard, State Engineer
July 3, 1972	Hearing on plaintiff's amended motion for preliminary injunction Ordered that the motion to intervene as a defendant by the State of Nevada is granted
July 5, 1972	Further hearing on plaintiff's amended motion for preliminary injunction
Sept. 6, 1972	Filed motion for plaintiff's agents to have access to defendants' lands
Sept. 14, 1972	Hearing on above motion

Sept. 22, 1972	Filed stipulation with order thereon, setting forth conditions for plaintiff's access to defendants' lands
Apr. 18, 1973	Plaintiff's motion for a preliminary injunction is granted as prayed for. The Court believes it should appoint a Special Master with authority to impose such limitations upon the pumping from defendants' wells as, in the Special Master's discretion, is deemed necessary to maintain the water level at Devil's Hole high enough to cover the natural shelf and thus tend to insure the survival of the pupfish, and yet at the same time to minimize the injury to defendants' livestock and agricultural pursuits, until final judgment or further order of the Court
May 10, 1973	Filed plaintiff's motion for an order adjudicating defendants in contempt for violation of preliminary injunction
	Filed plaintiff's motion to include specific language in Court's order granting a preliminary injunction
	Filed plaintiff's motion for T[em porary]. R[estraining]. O[rder].
May 15, 1973	Hearing on above three motions; first two denied, third motion continued

May 25, June 1, & June 2, 1973	Further hearing on plaintiff's motion for T.R.O.
June 5, 1973	Filed findings of fact, conclusions of law, and preliminary injunction, plus order appointing Leonard C. Halpenny of Tucson, Arizona, Special Master; preliminary injunction limits defendants' pumping to maintain a mean water level of 3.0 feet in Devil's Hole
June 6, 1973	Filed defendants' notice of appeal Filed defendants' motion for modification of preliminary injunction pending appeal
June 19, 1973	Filed intervenor State of Nevada's notice of appeal
June 21, 1973	Ordered that defendants' motion for modification of preliminary injunction pending appeal be denied
June 28, 1973	Ordered that certain measuring devices be installed under joint supervision of two named individuals representing the parties
June 29, 1973	Filed order of Court of Appeals; ordered that preliminary injunction be stayed pursuant thereto
July 23, 1973	Filed order from Court of Appeals denying stay. This Court declines to modify the preliminary injunction, and stay order filed July 2, 1973, is dissolved
Aug. 1, 1973	Filed defendants' motion for modification of preliminary injunction

Aug. 9, 1973	Ordered that foregoing motion be denied Ordered that preliminary injunction be modified to cause mean water level at Devil's Hole to rise to 3.0 feet on or before Sept. 27, 1973
Aug. 27, 1973	Filed mandate from Court of Appeals on its order of Aug. 20, 1973, which is effective immediately as a judgment
Sept. 10, 1973	Filed plaintiff's motion for entry of a permanent injunction
Oct. 2, 1973	Order amending order appointing Special Master in respect of time for submission of monthly reports
Feb. 5, 1974	Ordered that mandate of Court of Appeals remanding action be spread on the minutes
Apr. 9, 1974	Entered findings of fact, conclusions of law, and final decree, plus order continuing appointment of Special Master
Apr. 12, 1974	Filed defendants' notice of appeal
Apr. 16, 1974	Filed defendants' motion for modification of final decree pending appeal
Apr. 19, 1974	Filed stipulation that records in first appeals be part of new record on appeal
Apr. 26, 1974	Filed intervenor State of Nevada's notice of appeal

May 9, 1974	Ordered that defendants' motion for modification of final decree pending appeal be denied
May 13, 1974	Filed order from Court of Appeals; ordered that decree of District Court be stayed
May 31, 1974	Filed order from Court of Appeals; ordered that, pending appeal, final injunction is modified to require that water level at Devil's Hole be maintained at not less than 3.3 feet below the marker
June 7, 1974	Filed further order from Court of Appeals; entered same order as on May 31
Jan. 21, 1975	Filed plaintiff's motion to establish a 3.0 feet water level

2. Relevant Docket Entries, C. A. 9.

[Note: There were four appeals in this cause, as follows: (1) The Cappaerts' appeal from the preliminary injunction, numbered 73-2168. (2) Nevada's appeal from the preliminary injunction is 73-2915. (3) The Cappaerts' appeal from the final decree became 74-1690. (4) Nevada's appeal from the final decree was numbered 74-2186.]

(a) The Cappaerts' Appeal From the Preliminary Injunction, No. 73-2168.

[Caption omitted in printing]

June 26, 1973	Cause docketed
June 26, 1973	Filed appellants' motion for modification of preliminary injunction pending appeal
	Order staying preliminary injunction issued by District Court on June 5, 1973, stay to remain in effect for 14 days unless earlier terminated
July 17, 1973	Order declining to modify preliminary injunction pending appeal and dissolving earlier order
Aug. 13, 1973	Filed second motion for modification of preliminary injunction pending appeal
Aug. 20, 1973	Filed *Per curiam* order remanding for proceedings consistent therewith
Nov. 9, 1973	Order consolidating this appeal with No. 73-2915

Jan. 16, 1974	Cause argued
Jan. 24, 1974	Order remanding cause to District Court for entry of final decree, after which new appeals will be considered without further briefs or argument

(b) Nevada's Appeal From the Preliminary Injunction, No. 73-2195.

[Caption omitted in printing]

Oct. 4, 1973	Cause docketed
Nov. 9, 1973	Order consolidating this appeal with No. 73-2168
Jan. 16, 1974	Cause argued
Jan. 26, 1974	Order remanding cause to District Court for entry of final decree, after which new appeals will be considered without further briefs or argument

(c) The Cappaerts' Appeal From the Final Decree, No. 74-1690.

[Caption omitted in printing]

Apr. 18, 1974	Cause docketed
May 9, 1974	Filed appellants' motion for modification of final decree pending appeal
May 10, 1974	Order staying decree of District Court pending further order of this Court
May 29, 1974	Order modifying final injunction so that water level will be maintained at not less than 3.3 feet below marker

Dec. 4, 1974	Opinion and judgment of affirmance filed and entered
Dec. 17, 1974	Filed appellants' petition for rehearing and suggestion for rehearing en banc
Jan. 31, 1975	Order denying rehearing and rejecting suggestion for rehearing en banc
Feb. 7, 1975	Filed appellants' motion for stay of mandate
Feb. 19, 1975	Order staying mandate on condition that petition for certiorari is filed by Mar. 7, 1975
Mar. 6, 1975	Advised by Clerk's Office, Supreme Court, that petition for certiorari was filed on Mar. 6, and docketed as No. 74-1107
July 1, 1975	Filed copy of Supreme Court order granting petition for certiorari

(d) Nevada's Appeal From Final Decree, No. 74-2186.

[Caption omitted in printing]

June 21, 1974	Cause docketed
Dec. 4, 1974	Filed opinion and entered judgment of affirmance
Dec. 19, 1974	Filed petition for rehearing and suggestion for rehearing en banc
Jan. 31, 1975	Order denying petition for rehearing and rejecting suggestion for rehearing en banc

[Entries from Feb. 7 to July 1, 1975, same as in No. 74-1690, just above, and hence omitted in printing.]

3. Amended Complaint.

In the United States District Court, for the District of Nevada.

United States of America, Plaintiff, v. Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, individuals and Spring Meadows Ranch, Defendants. Civil—LV 1687.

COMPLAINT SEEKING
INJUNCTIVE RELIEF
AMENDED COMPLAINT
(Filed June 2, 1972)

I

This is a civil action in which the United States, as plaintiff, seeks to have the defendants, Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett and Spring Meadows Ranch, enjoined from pumping water from underground sources from Spring Meadows wells No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 1-A and No. 1-B, and all other wells and future wells in Sections 26, 28, 31, 32, 33, 34 and 35, T. 17 S., R. 50 E., Sections 1-4, 9-15 and 24 T., 18 S., R. 50 E., and Sections 5-8, 17-19, T. 18 S., R. 51 E., except for domestic purposes, in order to protect the federal water rights in Devil's Hole, Nevada, a non-contiguous part of Death Valley National Monument.

II

Jurisdiction of the Court is invoked under 28 U.S.C. §1345.

III

Spring Meadows, Inc., was a corporation formed under the laws of the State of Nevada on June 17, 1966, with 60 Court Street, Reno, Nevada, listed as

its place of business. Spring Meadows, Inc. filed a Certificate of Voluntary Dissolution with the Secretary of State for the State of Nevada on December 30, 1970. The only stockholders at the time of the filing of the Certificate of Voluntary Dissolution were Francis Leo Cappaert and Marilyn I. Cappaert of Vicksburg, Mississippi.

IV

Defendant B. L. Barnett is Ranch Manager of Defendant Spring Meadows Ranch, which ranch is located at Lathrop Wells, County of Nye, State of Nevada.

V

Devil's Hole, a 40-acre tract, was withdrawn from the public domain and became part of Death Valley National Monument by Presidential Proclamation 2961, of January 22, 1952. As stated by President Truman in the Proclamation, the area was withdrawn for the preservation of a "remarkable underground pool known as Devil's Hole" and "the presence in this pool of a peculiar race of desert fish . . . which is found nowhere else in the world."

When these lands were withdrawn, the unappropriated waters in, on, and appurtenant to such lands were withdrawn from private appropriation as against the United States and were reserved for use on such lands by the United States to the extent necessary for the requirements and purposes of said reservation.

VI

The United States claims rights in and to the use of as much of the waters of the springs and underground aquifers in, on, and appurtenant to the lands of the Death Valley National Monument at Devil's

Hole, Nevada, as is or may become necessary for the preservation of the pool of water and of the Devil's Hole pupfish (*Cyprinodon diabolis*) therein, having priority dates as of January 22, 1952.

VII

The defendants own lands or claim water rights within the Ash Meadows area near Devil's Hole and claim rights in or to the waters of that area, which rights are adverse to and jeopardize the rights of the United States.

VIII

The defendants drilled wells and began heavy pumping of groundwater in the summer of 1968. Since then they have engaged in heavy pumping each summer and fall. This pumping from wells No. 1-6 has drawn water from the springs and underground sources which comprise the supply for Devil's Hole and has caused the water level in Devil's Hole to drop. The defendants have also drilled two wells in late 1971 or early 1972, wells No. 1-A and 1-B, and have commenced pumping which has drawn water from the springs and underground sources which comprise the supply for Devil's Hole and has caused the water level in Devil's Hole to drop.

IX

On information and belief plaintiff alleges that the only rights of the defendants or any of them to pump water as herein alleged as acquired by Spring Meadows, Inc., a Nevada corporation dissolved voluntarily on December 30, 1970, under Application Nos. 25556, 25557, 25558, 25559, 25561, 25562, 25564, 25571, 25581, 25662, 26427 and 26446, from the State Engineer of the State of Nevada. Because the corporation

filed a certificate of voluntary dissolution with the Secretary of State for the State of Nevada it has thereby abandoned any right it might have had to pump said water. Any further pumping of water is contrary to the laws of the State of Nevada and in derogation of the rights of the United States to waters to maintain the Devil's Hole addition to the Death Valley National Monument.

X

The Devil's Hole pupfish, *Cyprinodon diabolis,* is recognized as an endangered species and is on the list of endangered species of the United States, published by the Secretary of the Interior under the provisions of the Rare and Endangered Species Act, 80 Stat. 926, as amended, 16 U.S.C. 668aa-668cc (1964).

XI

The Devil's Hole pupfish is dependent for feeding and reproduction upon a natural shelf just below the surface of the water in Devil's Hole pool. The pumping of wells 1-6, 1-A and 1-B has lowered the water level of Devil's Hole pool so as to expose seventy percent of the shelf. If the pumping were to continue, the entire shelf would be exposed and the extinction of the Devil's Hole pupfish would result.

XII

Irreparable harm, damage and injury will follow and be done to the plaintiff United States unless pumping of wells No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 1-A and No. 1-B, and all other wells in similar locations is enjoined for the reasons and facts set out in the paragraphs above.

WHEREFORE, plaintiff demands judgment against the defendants as follows:

1. That the Court determine and decree that the plaintiff United States has the rights to the use of so much of the waters from the springs and aquifers as is in, and on, and appurtenant to the land known as Devil's Hole, Death Valley National Monument, as may be necessary for the needs and purposes of maintaining the pool and the desert pupfish population therein, and that such rights be declared to have a priority date of January 22, 1952.

2. That the Court issue a preliminary and permanent injunction enjoining the defendants and each of them from pumping wells No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 1-A and No. 1-B, and from all other diversions and uses of water from springs and aquifers in Sections 26, 28, 31, 32, 33, 34 and 35, T. 17 S., R. 50 E., Sections 1-4, 9-15 and 24 T., 18 S., R. 50 E., and Sections 5-8, 17-19, T. 18 S., R. 51 E., except for domestic purposes, which would be similarly detrimental to the water rights of the United States.

3. That plaintiff be awarded costs and such other relief as the Court may deem proper.

JOSEPH L. WARD
United States Attorney
/s/ Daniel E. Ahlstrom
DANIEL E. AHLSTROM
Assistant United States
Attorney

DONALD W. REDD
JOHN H. GERMERAAD
Attorneys, Department of
Justice
Attorneys for Plaintiff

4. Answer to Amended Complaint.

In the United States District Court, for the District of Nevada.

[Caption omitted in printing]

ANSWER TO AMENDED COMPLAINT

FIRST DEFENSE

The Amended Complaint fails to state a claim against the defendants upon which relief can be granted.

SECOND DEFENSE

1. Admit the allegations contained in paragraph I, save and except that defendants deny that plaintiff has any federal water rights in Devil's Hole, Nevada.

2. Admit the allegations contained in paragraphs II, III, IV and X.

3. Deny the allegations contained in paragraph V and allege that said national monument was not created to preserve the desert fish, but only to preserve the underground pool because of its scientific importance.

4. Allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation contained in paragraphs VI and XI.

5. Answering paragraph VII, defendants deny that portion which reads "which rights are adverse to and jeopardize the rights of the United States" and admit the remainder of the allegations contained in said paragraph.

6. Answering paragraph VIII, admit the drilling of wells by the defendants in 1968 and the pumping of groundwater each summer and fall from 1968, but deny that said pumping was heavy; admit pumping from wells Nos. 1-6 has drawn water from the springs and

underground sources which comprise the common supply of water for defendants and for Devil's Hole and allege that they are without knowledge or information sufficient to form a belief as to the truth of the allegation that such pumping has caused the water level in Devil's Hole to drop; admit that in late 1971 or early 1972, two additional wells were drilled, deny that such wells are numbered 1-A and 1-B, and admit that defendants have caused pumping therefrom and such pumping has drawn water from the springs and underground sources which comprise the common supply of water for the defendants and for Devil's Hole and allege they are without knowledge or information sufficient to form a belief as to the truth of the allegation that such pumping has caused the water level in Devil's Hole to drop. Defendants further allege that wells have been drilled and groundwater pumped by they and their predecessors prior to 1968 from the springs and underground sources which comprise the common supply of water for the defendants and for Devil's Hole.

7. Deny the allegations contained in paragraphs IX and XII.

THIRD DEFENSE

1. On October 14, 1969, the plaintiff granted to Spring Meadows, Inc., predecessor in interest of defendants Francis Leo Cappaert and Marilyn I. Cappaert, a patent to 5,645.33 acres of land in Nye County. Said patent granted to Spring Meadows, Inc., the land "with all the rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto be-

longing, unto the said claimant, its successors and assigns, forever" excepting and reserving certain enumerated rights, which rights did not include any water rights.

2. Said patent was issued in exchange for other land selected by and deeded to the plaintiff.

3. At the time said patent was issued the plaintiff knew or should have known that Spring Meadows, Inc., intended to use said land for the grazing of cattle and the growing of feed for such cattle.

4. A considerable portion of said land has been used for the grazing of cattle and the growing of feed for such cattle.

5. If the injunction sought is granted, in whole or in part, defendants will be unable to use the land granted by the plaintiff by said patent for any purpose whatsoever.

6. By reason of the foregoing, the plaintiff should be estopped from seeking the injunction prayed for herein.

WHEREFORE, defendants pray that the Amended Complaint be dismissed with costs.

LIONEL SAWYER COLLINS &
WARTMAN
/s/ By Samuel S. Lionel
Samuel S. Lionel
Attorneys for Defendants

(Receipt of copy omitted in printing)

5. Answer of Intervenor State of Nevada.

In the United States District Court, for the District of Nevada.

[Caption omitted in printing]

ANSWER OF STATE OF NEVADA EX REL ROLAND D. WESTERGARD, STATE ENGINEER

FIRST DEFENSE

The Amended Complaint fails to state a claim against the Defendant upon which relief can be granted.

SECOND DEFENSE

1. Admit the allegations contained in paragraph I, save and except that defendants deny that plaintiff has any federal water rights in Devil's Hole, Nevada.

2. Admit the allegations contained in paragraph II.

3. Admit the allegations contained in paragraph III except that applicant for intervention is without knowledge or information as to who the stockholders of Spring Meadows were at the time of dissolution and therefore denies the same.

4. Applicant in intervention is without knowledge or information as to the name of the ranch manager of defendants and therefore denies the allegations of paragraph IV.

5. Admit that Devil's Hole, a 40-acre tract, was withdrawn from the public domain and became a part of Death Valley National Monument by Presidential

Proclamation No. 2961 in January 1952 and denies the remainder of the allegations of paragraph V.

6. Applicant in intervention is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph VI and therefore denies the same.

7. Denies that portion of paragraph VII which reads, "which rights are adverse to and joepardize the rights of the United States" and admits the remainder of the allegations contained in said paragraph.

8. Admit that defendants drilled wells in 1968 but are without information or knowledge sufficient to form a belief as to the truth of the remaining allegations contained in paragraph VIII and therefore denies the same.

9. Admit that the application numbers as set forth in paragraph IX are correct and deny the remainder of the allegations in said paragraph IX.

10. Applicant in intervention is without information and knowledge sufficient to form a belief as to the truth of the allegations set forth in paragraph X and therefore denies the same.

11. Applicant in intervention is without information and knowledge sufficient to form a belief as to the truth of the allegations set forth in paragraph XI and therefore denies the same.

12. Denies the allegations of paragraph XII.

WHEREFORE, Defendant (Applicant In Intervention) prays that Plaintiff be granted no relief under its Complaint herein.

Dated June 29, 1972.

ROBERT LIST
Attorney General
and
L. WILLIAM PAUL
Deputy Attorney General
Attorneys for
Applicant in Intervention
Nye Building, Room 216
201 South Fall Street
Carson City, Nevada 89701

(Affidavit of service omitted in printing)

6. Transcript of Proceedings, July 3 and 5, 1972.

In the United States District Court, for the District of Nevada.

(Caption omitted in printing)

Before the Hon. Roger D. Foley, Judge Presiding.

REPORTER'S TRANSCRIPT OF
PROCEEDINGS IN RE HEARING
PLAINTIFF'S AMENDED MOTION FOR
PRELIMINARY INJUNCTION
LAS VEGAS, NEVADA

Monday, July 3, 1972
Wednesday, July 5, 1972

THE CLERK: Civil-LV 1687, United States of America versus Francis Leo Cappaert, et al.

Mr. Daniel E. Ahlstrom and Mr. John H. Germeraad are present as counsel for the Government.

Mr. Samuel S. Lionel and Mr. Roger Wirth are present for the defendants.

Mr. Larry Reynolds and Mr. William Paul are present on behalf of the State of Nevada on a petition to intervene.

Your Honor, this matter is on calendar for hearing plaintiff's amended motion for preliminary injunction.

THE COURT: On June 30 the State of Nevada filed a motion to intervene as a defendant in this matter. [3]

* * *

THE COURT: Your motion will be granted, Mr. Paul. [4]

* * *

WILLIAM W. DUDLEY, JR.,

called as witness in behalf of the plaintiff, being duly sworn, testified as follows:

* * *

DIRECT EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff:

Q Mr. Dudley, would you also inform the Court of your address, please?

A I live at 6990 West Cedar Avenue, in Lakewood, Colorado.

Q And where are you presently employed, Mr. Dudley?

A I'm employed as a research hydrologist with the U.S. Geological Survey in Denver.

Q Could you give to the Court a sketch of your [6] background, please?

A I received a Bachelor of Science and Engineering in Geological Engineering from Princeton University in 1960, Master of Science in Geology from the University of Illinois in 1962, and a Ph.D. in Geology from the University of Illinois in 1967.

Q (By Mr. Germeraad) During this time did you concentrate on any special areas in your studies?

A Yes. I concentrated in hydrogeology, the study of water resources.

Q Could you go a little further and define for the Court why hydrogeology concerns?

A Well, hydrogeology is the study of the currents and movement of water, predominantly underground water, within the geologic framework of the earth.

Q Dr. Dudley, have you prepared at my request a resume of your occupational experience in geology and hydrogeology since receiving your undergraduate degree in 1960?

A Yes, I have.

Q Do you have a copy?

MR. LIONEL: Your Honor, the defendants will stipulate to the qualifications of Mr. Dudley as a hydrologist. [7]

* * *

Q (By Mr. Germeraad) Dr. Dudley, when did you first begin the study of hydrology in the State of Nevada?

A In the State of Nevada I began doing hydrologic research in 1961.

Q And what percentage of the time since that time has been spent studying hydrology in Nevada?

A Well, overall, from 1961 to the present time, between 50 and 60 percent.

Q And of this how much relates to the Ash Meadows [9] region?

A From September of 1970 through October of 1971, I studied the Ash Meadows region intensely.

THE COURT: From September of '70 until when, Dr.?

THE WITNESS: Until October of 1971.

A (Continuing) I served as Project Chief of the Nevada Test Site hydrology program, in support of the Atomic Energy Commission, and part of my responsibility with regard to that program includes the off-site water resources and their safety, protection from contamination during the testing.

The Ash Meadows region is included within my area of responsibility as Project Chief of that program.

Q (By Mr. Germeraad) On Plaintiff's Exhibit 2, your bibliography, what does the cross designate prior to each of these publications?

A The cross designates those publications that deal with the geology or hydrogeology of Nevada.

Q Does the first publication listed there, "The Effect of Irrigation Pumping on Desert Pupfish Habitats in Ash Meadows, Nye County, Nevada" relate to the specific study of the Ash Meadows region, including Devil's Hole?

A Yes, it does.

Q When did you first start acquiring the data for [10] this report?

A In September of 1970.

Q (By Mr. Germeraad) And what was the objective of this study?

A The objective of the study was to determine whether or not the local pumping, that is, pumping in the Ash Meadows area, was responsible for the observed decline in the water level of Devil's Hole and the decrease in discharge of several springs in the area.

Q Between September '70 and October, 1971, when you collected the majority of the data, what type of data were you collecting and what was your program or methodology in collecting this data?

A Well, we began by diving in Devil's Hole to determine whether the water level had been lowered in the past. We continued to record on a continuous basis the water level in Devil's Hole.

We established several observation wells and recorded the water level in these wells. We recorded the discharge of about ten springs in the area.

THE COURT: Would you explain a little further what you mean by an observation well?

THE WITNESS: Yes, sir. These are wells which do not have pumps and therefore we can install a flip-type recorder down in the casing. [11]

THE COURT: Do you actually drill these wells?

THE WITNESS: No. These are wells that had been drilled by the Spring Meadows Ranch, but not used.

THE COURT: I see.

Q (By Mr. Germeraad) What other activities did you use to gather data for your further studies?

A Well, the last thing that I mentioned was that we did record the discharge of several of the springs. We monitored the pumpage from the well field of the major irrigation wells. We also pump-tested the major wells and well field. We collected water samples and made chemical analyses of them:

Q Is that what you mean by "pump-testing"?

A No, sir. The pump testing is a controlled means of evaluating the well, the well's productive capacity, and the hydrologic characteristics of the rock which is contributing water to the well. We do this by turning on the well and gaining measurements of the water level decline in the water head involvement and follow it hopefully until it stabilizes.

We also measure water levels in nearby wells using these as observation wells during the pump test.

Q Did you make any field examination in addition to the monitoring of the wells and the springs? [12]

A Yes. We made a general hydrogeologic reconnaissance of the area to understand the geologic framework that governs the discharge of water in the Ash Meadows area.

Q (By Mr. Germeraad) Since October of 1971, what has your procedure been regarding the collection of data and your study in the Ash Meadows' region?

A Well, since October of 1971, we have withdrawn many of the observation stations. We have continued to record the discharge of four springs in the area.

Q Could you name those springs for the Court, please?

A Yes. From south to north they are Jack Rabbit Spring—or no, first of all, Big Spring, I'm sorry, then Jack Rabbit Spring, then a small group of springs in the Point of Rocks area, and then finally at the north end of the property, the Fairbanks Spring.

Q Have you also continued to monitor the pumping of other wells?

A We have monitored this by monthly readings of the electrical meters rather than the more intense readings that we took earlier in the program.

Q Could you tell the Court exactly what irrigation wells by their numbers, as of 1971, were being monitored at this time, from beginning in 1970 all the way through [13] to the present date?

A Yes. I have a map which shows the locations of these wells. [14]

* * *

(Plaintiff's Exhibit 2, having been previously marked for identification, is received in evidence at this time.)

A This map shows several features in the Ash Meadows area. First, it shows the major springs. This is Fairbanks Spring, the smaller one, Soda Spring, Rogers Spring, Longstreet—there are a series of smaller springs that altogether discharge fair amounts of water about 170 [14] gallons per minute, right there (indicating), covered by a black dot representing this well. Crystal Spring in this area, is the largest spring in the area. Then there are a series of small springs at the end of this region.

In the Point of Rocks area, which is the prominent limestone hill coming down into Section 7, there is a large spring called the King Pool. There are a series of smaller springs. These are the ones that I referred to earlier as being the small springs in the Point of Rocks area which we had there for sometime.

Then there is Jack Rabbit Spring and finally Big Spring. These are the major springs in the area.

The wells which are used for irrigation, which have rather high yields, are Well 1, Well 2, Well 3, Well 4—this would be until September of 1971—Wells 4, 5 and 6; Well 7, and Well 8. The numbers which I use here are those which prevail in the field during the studies in the summer of 1971.

Q (By Mr. Germeraad) Would you also point out to the Court the location of Devil's Hole; also point out, please, what we have on the map designated as 1A and 1B, and which Mr. Lionel informs me is designated by the Ranch as Wells 16 and 17?

A Yes. All right. Devil's Hole sits right here in the southeastern quarter of Section 36. (Indicating.) [15] The two wells which I was asked to point out are 1A, the open circle with a cross through it, indicating that it is a low-yield well. And I neglected to draw the cross on the legend. It should be on here.

Q (By Mr. Germeraad) And 1B?

A And 1B then is the solid covered-in well in Section 8. Neither of these wells existed during the 1971 yield zone, however.

Q For the record, 1B is known as Well No. 17; is that correct?

A That is correct.

MR. GERMERAAD: Mr. Lionel?

MR. LIONEL: That's what we call it, your Honor.

THE COURT: And 1A as 16?

MR. GERMERAAD: Yes, your Honor.

Q Earlier you said that you monitored the electrical consumption of the pumps on these wells. What was the purpose of this function?

A The purpose of this was to be able to estimate, and on a consistent basis, the discharge of these individual wells in the well field. Initially, we hoped to be able to use discharge meters which were purchased and installed by the Ranch.

However, sediment that was in the water pumped by [16] the wells soon plugged the discharge meters, and all but two are inoperable.

Q (By Mr. Germeraad) So then what was the procedure for the correlation between the water discharge and the electrical consumption?

A The electrical consumption was measured by visiting the wells intensively over a period of at least two days while they were pumping continuously, establishing the rate of use of electrical power. During this period we also then measured the discharge of the wells by means other than meters, such as gauging the open ditches in which the water was discharged.

Q How accurate is this procedure which you have used since the metered wells became inoperable?

A The accuracy is quite good for most of the wells; for some which have varying conditions of lift or back pressure, if they're carrying water to a much higher point than the well, the accuracy is not better than plus or minus 20 percent.

Q As an example, then, if on the basis of your calculations from the electrical consumption you came

up with a figure of 1,000 acre feet, then it could actually vary in actual quantity between 800 and 1,200 acre feet?

A That is correct.

Q But most of the wells have greater accuracy than [17] that?

A Yes. Most have accuracy within 10 percent.

Q (By Mr. Germeraad) Now you can sit down or you can say where you're at.

But now going back to the first information that you mentioned, your examination of Devil's Hole by diving in September of 1970, would you please tell us the methodology of your examination and what you found?

A Above the present water level there are depositional rings, calcium carbonate, that were left by former higher stands of water level. We felt that if these were visible beneath the present water level that they would have indicated that the level had been there in the past, and that the pupfish had been able to survive with that lower water level.

Q Once you referred to this as a bathtub ring. Is this a good concept?

A Yes; very much like a bathtub ring.

Q Then tell us a little bit about your method of examination of Devil's Hole itself under water?

A Well, I personally dove to a depth of about 30 feet, and could see a little beyond that, so I would say that my examination was to a depth of about 40 feet. I had a team of three divers from the National Park Service and whom I instructed by showing them the rings above the present [18] water levels, and what to look for. They went to a depth of 90 feet. None of us observed any features that were similar to those above the present water level, indicating that the water level has been lowered in the past.

Q (By Mr. Germeraad) Are not the rocks in the Devil's Hole area stratified, and could this perhaps mask a lower water level?

A It could, except that the rocks in the Devil's Hole region dip about 40 degrees. They are no longer horizontal as they were when they were originally deposited; consequently, the depositional rings would contrast strongly with the stratification.

Q How long has the United States Geological Survey monitored the water level in Devil's Hole?

A The monitoring began in 1956. It was intermittent and referenced to a marker different than that in use today. This intermittent and reference marker or water level existed up to 1962. In June of 1962 the present reference marker, which consists of a copper washer nailed into a joint on the side of the hole, was established. The record since then is about 90 percent complete, and is consistent with reference to the copper washer marker.

MR. GERMERAAD: Before I go any further, I would like to have the paper copy of this exhibit which is on the screen marked as Plaintiff's Exhibit 3, and admitted [19] into evidence.

* * *

(Plaintiff's Exhibit 3, marked for identification as shown above, is received in evidence.)

Q (By Mr. Germeraad) Do you have another exhibit for us that will show us this water level in Devil's Hole?

A Yes, I have.

MR. GERMERAAD: And this I would like to have marked Plaintiff's Exhibit 4. I would like to have the paper exhibit copy made Plaintiff's Exhibit 4 for identification.

THE CLERK: Plaintiff's Exhibit 4 marked for identification.

(Plaintiff's Exhibit 4, being a diagram, is marked for identification at this time.)

Q (By Mr. Germeraad) Now, could you point out to everyone in the Court the different symbols and everything on this exhibit, and what each thing illustrates?

A Yes. The upper line represents the highest water [20] level that was recorded during any given month in Devil's Hole. The lower line represents the lowest water level reported during a given month in Devil's Hole. The small dots or points, for the record, in existence here are the actual values that were measured during that month. The long dashed lines between them are just dashed points and merely connect the points to show the trend from month to month.

Q (By Mr. Germeraad) Is there a continuous recorder that is in Devil's Hole which gives you the readings so that a person can simply go there once a month and have the complete record?

A This is correct. There is a recorder there. In the period before 1962, I believe you can see it on the paper copy, 1962, this here (pointing), we note that the record is very intermittent. At the time they were not concerned so much with a continuous record of the water level in Devil's Hole as they were in a day-to-day variation, so we do not have a good record back to 1956. We do not also have a reference to the same copper washer.

The interpretation of some of these old charts is very difficult, we think, but this is probably a good approximation of where the water level was.

Q Do you have any doubts as to the height of some of these water levels prior to 1962? [21]

A Prior to 1962 I feel that probably the reference is where the water level is shown somewhat too high.

* * *

Q (By Mr. Germeraad) I'll rephrase the question. I believe earlier you talked about a copper washer. When was this established in Devil's Hole?

A This was established in June of 1962 and July, 1962 readings, and the first that actually used that reference point.

Q Was there a common reference point prior to 1962?

A None that we've been able to identify in examining the historical records.

MR. GERMERAAD: Thank you.

BY THE COURT:

Q What was the relation between that copper washer, the elevation of it, and the water level when installed?

A When installed, sir, the water level was—

Q Was it installed with the existing water level?

A No, sir; it was installed approximately one foot above the water level.

Q The first figure that appears in the upper left-hand corner is .60. As I understand it, that's .60 feet [22] below the washer?

A That is correct.

Q (By the Court) But the washer wasn't installed until 1962?

A That is correct.

Q (By Mr. Germeraad) Continue from 1962 then farther on, please?

A From 1962, which is here (indicating), the water level maintained a rather constant level in the pool until 1968, approximately, when at the end of the year

we began to get a rather large departure, a great drop. In 1969 we got another very large drop. And recovery at the end of 1969 was nowhere near as it had been. It did not get us up to the previous level of the hole.

Then when spring arrived again, the water level began to drop off precipitously again in 1970. And I have another graph which carries that. [23]

* * *

(Plaintiff's Exhibit 4, having been previously marked for identification, is received in evidence.)

MR. GERMERAAD: This next exhibit I would like marked for identification Plaintiff's Exhibit 5.

THE CLERK: Plaintiff's Exhibit 5 marked for identification.

(Plaintiff's Exhibit 5, being a graph, is marked for identification at this time.)

Q (By Mr. Germeraad) Dr. Dudley, how does this relate to the previous exhibit?

A This is a continuation of the monthly lowest water level in Devil's Hole. I have not plotted the highest because there's some problem in scale getting it on to a gauge height notation, and it goes on from 1965 to the present time.

Q Is there shown on this a correlation with pumping of ground water?

A Yes. The pumpage which we have estimated by means of the electrical power readings of the well field, total of the well field, is shown upside down: the line of pumpage increases downward in this corner. (Indicating.)

The first heavy pumping was in 1969. There had been test-pumping in the beginning of irrigation by well

in 1968; from the power records it only recorded back to 1968. [24] With other pumping of wells in 1969, we reached a new record low in Devil's Hole water level.

Q (By Mr. Germeraad) And that is approximately what, Dr. Dudley?

A That was approximately 2.3 feet.

Q And this is below the copper washer?

A This is below the copper washer. Prior to any pumping in the area, the low had been minus 1.59 feet. In 1970, we reached a low of 3.17 feet, I believe it was, and in 1971, again with high pumping, we got down to 3.48 feet.

I do not have the pumpage shown on this graph for 1972 yet. We have not computed it directly. However, we determined on a chart that was collected just a few days ago that we have now reached a level of 3.68 feet as of May 23-June 27.

Q Taking the northeast area in the upper portion of Plaintiff's Exhibit 5, these being the estimated pumpage in acre-feet, what would you get if you added up each of these monthly? Is this both a rate and a total amount?

A This is a total amount pumped per month, which because it is the function at the time is a rate. The actual value pumped per year would be determined by adding each of the points on these. In this case 1971 would work out a little less than 7,000 acre-feet per year. In 1970, [25] it would have very roughly been the same, 6,800; it was considerably less in 1969.

Q (By Mr. Germeraad) Is there some correlation between water pumpage and acres under cultivation?

A Yes, there is. In the December hearings before the State Engineer, in that regard Mr. Barnett, the

Manager of the Spring Meadows Ranch, did state the acreage under cultivation, and nineteen-sixty— [26]

* * *

MR. GERMERAAD: Well, then, Mr. Barnett can also verify this later, and I don't think there's any problem.

THE COURT: All right. I'll receive it subject to a motion to strike later. Go ahead.

MR. GERMERAAD: Thank you, your Honor.

Q Could you give the Court these figures, please?

A Yes. The approximate figures were: in 1967, with 300 acres under cultivation; in 1968, approximately 800 acres under cultivation; in 1969, it went to about 1,750; and this is one of the largest drops, that is when the largest drop started; in 1970, it was about 3,100; in 1971 there was more land cleared; however, it was not all planted. I'm not sure of the exact figures on what acreage was actually under cultivation in 1971.

Q In other words, you don't have the specific knowledge in any way then after 1971?

A That's correct. [27]

Q (By Mr. Germeraad) Okay. Would you say, looking with Plaintiff's Exhibit 5 as an illustration of your testimony, that there is a correlation then between the pumping history and the water level in Devil's Hole?

A Yes. As I cited, there's a very clear correlation between the two.

Q Have you made any attempt to correlate specific wells with the Devil's Hole level?

A Yes, we have.

Q Before we then go on to the next exhibit—

A —data on that.

MR. GERMERAAD: —I'd like Plaintiff's Exhibit 5 admitted into evidence.

* * *

(Plaintiff's Exhibit 5, having been previously marked for identification, is admitted into evidence.)

MR. GERMERAAD: I'd like the paper copy of this marked Plaintiff's Exhibit 6 for identification.

THE CLERK: Plaintiff's Exhibit 6 marked for identification.

(Plaintiff's Exhibit 6, being a graph, is marked for identification at this time.) [28]

Q (By Mr. Germeraad) Could you please explain to the Court what Plaintiff's Exhibit 6 illustrates?

A This exhibit compares the water level in Devil's Hole, in this case the lowest during the month, to the percent of a shallow ledge existing on the edge of Devil's Hole, which is under water at a given water level.

The ledge is considered to be very important for the survival of the pupfish. It was defined as being 100 percent covered in May of 1970—when the water level was at a stage of 2.2 feet. This is approximately six- to eight-tenths of a foot below the normal undisturbed water level in Devil's Hole.

The initial drop in 1969 reduced the coverage to 92 percent at the annual lull; in 1970 only 46 percent of the shelf was covered; in 1971, it dropped to 21 percent; and in early June of 1972, it dropped to 15 percent of coverage, and with the water level, which I reported a few moments ago, of 3.68 which I had added on to the paper copy but not on to this, we are now down to a coverage of about 10 percent of the shelf.

Q These are the low water marks in each case?

A These are the lowest that are recorded each month and each year. [29]

* * *

(Plaintiff's Exhibit 6, having been previously marked for identification, is received into evidence.)

Q (By Mr. Germeraad) Dr. Dudley, do you have another exhibit, going back to my question of correlating specific wells to the water level in Devil's Hole?

A Yes, I do.

MR. GERMERAAD: I'd like the paper copy marked Plaintiff's Exhibit 7.

THE CLERK: Plaintiff's Exhibit 7 marked for identification.

(Plaintiff's Exhibit 7, being a graph, is marked for identification at this time.)

Q (By Mr. Germeraad) Dr. Dudley, would you explain the difference between our paper copy and what you have shown up on the View-Graph?

A Yes. These are made from the identical original illustrations. However, I was not able to get on the View-Graph, which is the contract process "twenty-one scale" both the pumpage and the water levels in Devil's Hole and this observation level, and so I superimposed the lower figure [30] on the paper copy on the hydrographs.

Q (By Mr. Germeraad) Now, could you explain what each of the lines and the bars illustrate, please?

A Yes. The upper black solid line is the mean daily level in Devil's Hole. This is the average water level throughout the day, and computed for each day of the year. And the lower line is the same quantity as the mean daily level in an observation well which is located 900 feet east of Devil's Hole.

All right. Now, the blue histograms give the time during which pumping was going on from the wells which

are numbered as indicated, 1, 2, 3, Well 13, Wells 4, 5, 6, 7 and 8.

Q Could you explain any correlation that you may find between the pumping and the water level of Devil's Hole, please?

A Yes. The hydrograph of the observation well is very useful to look at first, because it responds more sharply to the pumping stresses. Devil's Hole responds somewhat more sluggishly, but this tends to point out the trends that are going on in Devil's Hole.

The pumping essentially started about the end of January or early February in 1971, and we did get a decrease in the water levels of the two. Well 5 ceased pumping in mid-February. We got a recovery of this. The [31] portion of the record through here (indicating) shows the effect of Well 1 pumping being turned off, pumping again, turned off, pumping—but 1 and 4 appear to be affected during that period of time.

The pumping for most of the wells started to get going quite well by early April, and we got a decline in the water levels of each. About, oh, past halfway through April, about April 20, the Ranch encountered labor problems, and most of the wells were shut down for a period of time, and the water levels recovered during this period.

During later May pumping began to pick up again, and we started the decline. By mid-June the pumping was almost continuous for most of the wells in the area, and we had a rather severe decline beginning then.

Now, the second half of this shows the right-hand side of the paper copy—

Q (By Mr. Germeraad) Of Plaintiff's Exhibit No. 7.

A —and we continue then from July with pumping being quite constant for most of the wells in 1, 2,

3—13, 4, 5, 6, 7 and 8, and continued to decline until early September of 1971. On September 9 Wells 4, 5 and 6 were turned off by agreement between the Ranch and Government, and we got a very dramatic recovery in the observation well, followed through usually a little more slowly, however, by Devil's Hole. This recovery, however, was apparently [32] completed, about two-tenths of a foot recovery in Devil's Hole, by mid-October. And we then got a slow decline for the rest of the year, until about December 20, somewhere between the 20th and 25th, this is the period of time when we are no longer collecting data as intensively as we had prior to October, 1971, but between December 20 and December 25, Wells 2 and 3 were turned off. We began to get a recovery at a rate of about two-tenths of a foot per month.

I have one more extension of the Devil's Hole hydrograph here which takes us into 1972.

* * *

(Plaintiff's Exhibit 7, having been previously marked for identification, is received in evidence.)

Q Dr. Dudley, before you take that down—

A Yes, your Honor.

Q —the blue area differs vertically in depth. Would you explain that, please? What is the relation?

A I'm sorry, I forgot to do that. The height of the blue histograms indicates the estimated rate of pumpage of the wells during the time they are on. These are sometimes measured rates and other times they are [33] determined by correlating the electrical power consumption with previous missions.

Q (By Mr. Germeraad) So the thicker the blue bar the more water that is being pumped from that well?

A This is correct. This amount here represents approximately 1,500 gallons per minute in Well 1; Wells 2 and 3 are respectively about 1,000 gallons per minute —about 1,200 gallons per minute from Well 3; not more than 200 from Well 13—this is a rather small well; Well 4 initially had a rather high yield, but during the summer it'd drop off and it was down to a few hundred gallons per minute on the average. The well began to surge and suck air for periods of time. Well—

Q Excuse me, on the bottom of the paper copy, which is marked for identification as Plaintiff's Exhibit 7, there is a scale that shows pumping rate and gallons per minute, and the dashed line shows what its average was for over a period of time; is that correct?

BY THE COURT:

Q If the blue line then were up at the top that would be two thousand?

A Yes, sir.

Q Two thousand what, acre-feet?

A No, gallons per minute.

Q Gallons per minute? [34]

A Right.

Q (By the Court) So this chart is made to scale?

A Yes.

THE COURT: Any objection to the reception of this document?

* * *

THE COURT: It will be received.

Q (By Mr. Germeraad) Do you have another exhibit for us, Dr. Dudley?

A Yes. We have this extended into 1972.

THE CLERK: Plaintiff's Exhibit 8 marked for identification.

(Plaintiff's Exhibit 8, being a diagram, is marked for identification at this time.)

Q (By Mr. Germeraad) Continue, Dr. Dudley.

A In 1972 we had on the observation well initially a greater recovery of about two-tenths of a foot per month in January, in early January. And on about January 20 we began to come down and have the precise date Well No. 1 was turned off and the rate of recovery increased slightly to between three and four-tenths of a foot per month.

The recovery of Devil's Hole, which we were able to record after January 24—we had a missing record in [35] there due to a malfunctioning recorder—the recovery continued until February the, about the 24th, in that range. And then the power records, plus examination of several observation wells, indicate that on February 24 Well No. 1 was turned on and Well No. 2 was turned on. On February 29 Well No. 3 was turned on.

Well No. 1B, or that which is—

Q (By Mr. Germeraad) Known as 17?

A — known as 17, that was turned on on May 5 for production pumping and we had test-pumping before that.

Q Do you have an exact date for that or is this an approximate date for the examination of the observation wells?

A By looking at the observation wells, however, the observation wells in this Point of Rocks area responds very sharply to both Well 1 and Well 1B or Well 17.

Q In period of time, how long of a lag time do you believe exists?

A No more than a few minutes with that particular observation well.

Q Are there any other ways to correlate the specific wells to the water level in Devil's Hole?

A Yes. During the pump testing of the wells throughout, we established the degree of hydraulic connection between the individual wells in the well field and some other observation points. [36]

MR. GERMERAAD: Before we mark our next exhibit for identification, I move the admission of Plaintiff's Exhibit 8.

* * *

(Plaintiff's Exhibit 8, having been previously marked for identification, is rec'd. in evid.)

MR. GERMERAAD: I ask that the paper copy of this exhibit that is now on the View-Graph be marked as Plaintiff's Exhibit 9.

THE CLERK: Plaintiff's Exhibit 9 marked for identification.

(Plaintiff's Exhibit 9, being a diagram, is marked for identification at this time.)

Q (By Mr. Germeraad) What does this exhibit illustrate, Dr. Dudley?

A This exhibit shows the locations of wells south and east of Devil's Hole. Devil's Hole is here. (Indicating.) The observation well which was shown on the previous three hydrographs that I've shown you is right here. (Indicating.) Wells 5, 13, 4, Wells 1, 1A, 1B, 2, 3 and another observation well in Point of Rocks area here—Wells 11 and 12 which are very small yield wells—and [37] in Section 31, Well 31dd—and this well has been used as an observation well since mid-January of 1972.

Q (By Mr. Germeraad) Again, what is marked as 1A and 1B is Wells 16 and 17?

A Respectively; yes.

Q Continue, Dr. Dudley.

A The brown lines on this illustrate the degree of hydraulic connection as determined during the pump testing and in later examination of long-term hydrographs with pumping history of the wells shown.

By a good connection, as shown by the solid line, I mean that we have a response beginning at the observation point very soon after pumping begins, within a few minutes, and that the amount of drawdown at the observation point indicates that there is a complete hydraulic connection between the two.

BY THE COURT:

Q Excuse me, Dr. Dudley. What is the number of the well in the upper—yes, right there?

A That one, sir—that is 31dd.

Q Is that involved in this case?

A Just as an observation well.

Q Okay.

A This is one that does not have a pump in it at the present time, to my knowledge. [38]

Q (By the Court) And your observation well that is 900 feet from Devil's Hole, you designate that as 36dd?

A 36dd. "dd" means, sir, that they are in the, near the extreme southeastern corner of the section.

Q All right. Thank you.

A (Continuing) The "Fair" hydraulic connection just indicates that the response is somewhat more sluggish but still very, very visible at the observation point.

Q (By Mr. Germeraad) In time, could you give us what you're indicating?

A Well, for instance, for pumping Well 1 to 7, and observing at Well 7dd, an observation well, as soon as the pump is turned on here, it would be within two

minutes before the decline would be noticed at 7dd. And that is a "good" connection.

Now, if that well were connected only to a "fair"—with a fair degree of connection, we would expect to see that after perhaps 10 to 15 minutes, instead of a very sharp draw-down, it would round over and begin to drop more slowly

Q While you're at it, could you then define the time then which you have designated as "Moderate" and "Poor"?

A "Moderate" then would probably indicate for wells as far apart as this, that would be perhaps as much as an hour before we saw the draw-down at the observation point [39] in pumping this well, and the amount of draw-down would be less than you would expect for a well that distance from a pumped well.

Q (By Mr. Germeraad) Does the rate of observation of the draw-down also depend upon how much water is being pumped?

A No. The time of arrival of the effect at the observation point is not affected by the amount of the water being pumped. However, this does affect the amount of drawn-down which we will experience at the observation point.

MR. GERMERAAD: Thank you.

One point which I think we probably should have covered in the beginning, your Honor:

Q Can you explain, starting way back with some of our first exhibits, you had a high watermark and a low watermark for a month.

Are there natural forces which cause the water level in Devil's Hole to vary and, if so, please explain these?

A Yes, there are. There are several natural forces which affect the water level in Devil's Hole. First of all,

the tidal forces of the sun and moon produce porosity changes in the atmosphere daily, and we have a fluctuation of the water level resulting from these porosity changes; changes in barometric pressure will also affect the depth to [40] which the water is pushed into the cavern by the air pressure.

BY THE COURT:

Q I understand the latter, but would you explain the porosity changes caused by the moon?

A Yes, sir. The crust of the earth responds on a more limited basis very much as do the oceans to tidal forces.

Q I see.

A And when the moon is fully overhead the crust is lifted somewhat and then is allowed or it's given relief from carrying all this overburden load.

When this happens the force faces dilate slightly and the water level in Devil's Hole and in observation wells then drops somewhat.

Q As the crust of the earth rises then the water level drops?

A Water level drops? Yes.

Q (By Mr. Germeraad) Then in defining the objective of your study, was your study simply just to study the natural variations in the water level, or what?

A Well, it was the objective, of course, to determine whether pumping was causing the unusual declines and indicated that we felt these were unnatural, and wished to determine whether or not pumping was the cause of these [41] declines.

The range in water level of Devil's Hole from natural causes could be as much as a half foot per day. However, these are continually reversing themselves so that

the range from 1962 through 1967 was only a total of seven-tenths of a foot.

Q (By Mr. Germeraad) In other words, the highest high and the lowest low were separated by only seven-tenths of a foot?

A Yes, that's correct. The highest high was .9 feet below and the highest low was 1.59 or 1.6 below the marker.

Q Is the variation on a daily and also cyclical basis then with the tides the reasons you sometimes use averages?

A Yes. This is why we computed the daily means so that we could have an average value compared to the pumping history of the wells. The fluctuation of reverse tides particularly overshadows any of the effects of pumping on a short term basis. That is a matter of a few hours, and it was necessary to use daily means.

Q Now, referring back to Plaintiff's Exhibit 9, just point out briefly the connections and then please explain the significance of this exhibit to us, Dr. Dudley?

A Okay. The degrees of connection, as I indicated [42] a bit earlier are shown in brown. We have an excellent connection in this Point of Rocks area between Wells 1, 3, 7dd. There is also a good connection between Well 1 and Well 1B or Well 17 up to the observation well 31dd. Although these points are separated by a mile and a half—these are sections platted one mile in size—although they are separated by a mile and a half, affects a rise within a matter of perhaps a few tenths of minutes to a few hours at this well here (indicating), and we have had so far two and a half feet of draw-down in this well so far this year. (Indicating.)

This is considerable draw-down for being that far from the wells being pumped.

Well 5—as we discussed on the hydrograph of Devil's Hole and the observation wells, compared that to the pumping history of the well—Well 5 has a "Fair" degree of connection to Well 36dd. It also has a "Fair" connection with Well 13, "Moderate" to Well 4; and generally the connection from Well 4 over toward the Point of Rocks area is not better than "Moderate." It is even "Poorer" between Well 4 and Well 2.

Q Once you finish with this, would you please go to your next exhibit, which also is somewhat of an amplification of this?

MR. GERMERAAD: I'm going to wait to introduce [43] these until both of them are explained.

A This orange overlay—

MR. GERMERAAD: I would like this marked Plaintiff's Exhibit 10 for identification.

THE CLERK: Plaintiff's Exhibit 10 marked for identification.

(Plaintiff's Exhibit 10, being an overlay, is marked for identification at this time.)

Q (By Mr. Germeraad) Go ahead, please.

A —this orange overlay then shows how I infer the connection of wells to Devil's Hole by knowing that Devil's Hole was fairly well connected with this observation well, which is fairly well connected with this, and so forth, on down the line, and we know there's an excellent connection up here in this direction. (Indicating.)

And from this then I believe Well 5 still has the good connection to Devil's Hole, "Good" to "Fair", in that range; that Well 4 has a "Moderate" to "Good" connection; Well 13 has a "Fair" connection. However, it

is a small capacity well. Consequently, the amount of draw-down would not be as great as Well 5.

Well 2 has a "Moderate" to "Poor" connection with Devil's Hole; Well 3 probably a "Moderate" degree of connection; but the two together, you recall, did cause, or when the two together, Wells 2 and 3, were turned off in [44] December of 1971, the decline of Devil's Hole did reverse, and we began to get a recovery for the first time since May of that year.

Well 1 has been a "Fair" degree of connection when it was turned off in January of '72. The recovery was increased. I infer then that Well 1B, since it also affects the same observation points that Well 1 does and affects Well 1 itself, I infer that it also has a "Fair" degree of connection to Devil's Hole.

Q (By Mr. Germeraad) And Well 1B is Well No. 17?

A That is Well No. 17.

Q You have used terms again of "Moderate" and "Poor" and "infer." I believe that these may be scientific terms, and in layman's terms what exactly do you mean? What is the significance then?

A Well, the term "infer" doesn't mean that it's a guess. It means that it's a reasoned way of arriving at this conclusion, although we do not have a means of taking any individual well and pump-testing it with everything else left off and observing Devil's Hole. It has not been economical to leave everything off and pump a well for two weeks.

Q So am I correct then, is what you're saying that because the Ranch was pursuing its normal operation, you could not simply have a chance to observe just one well at [45] each time and how it related to Devil's Hole?

A This is correct, with the entire southern area. We were able to do that with Mr. Barnett's permission in the northern wells, Wells 7 and 8.

Q (By Mr. Germeraad) And are the wells that were drilled in Devil's Hole penetrating the same formation, and also can you define what Devil's Hole is for the Court? I think everybody knows, but for the record explain it, please?

A Well, Devil's Hole, shown as a rectangle here, is a limestone cavern, the roof of which has collapsed, dropping large rocks down into the cavern. As a matter of fact, the shallow shelf, which is gradually being emerged or which is becoming emergent with the lowering of the water level, is actually a kind of a keystone drop rock wedged into the cavern.

It contains a pool which is, oh, 45, 50 feet below the surrounding land surface, and that pool is approximately 40 feet long and about 10 feet wide. The cavern beneath the water level varies some in width from perhaps 12 feet to narrowing down to as much as 3 feet in places, and dips to the southeast at an angle of about 75 degrees. It forms a nearly vertical tabular cavern under the water.

It is an old solution channel. It has been a [46] path for ground water movement from the northeast or the southwest for thousands of years.

BY THE COURT:

Q What do you mean "solution channel"?

A It's a fracture, or in this case, a fault in which the calcium carbonate and the limestone has been dissolved by ground water, creating a dissolved cave or cavern. In this case it's a tabular cavern.

Q And as it goes down the hole it's then vertical?

A Very close to vertical. It stands at an angle of about 75 degrees to horizontal.

Q To what depth?

A Well, to a depth of at least 200 feet. This is the deepest anyone has been, to my knowledge, although there are some that apparently went deeper. They just never came back to tell about it.

MR. GERMERAAD: And this is the reason that it is fenced off, your Honor, for protection.

Q You say this was an old solution that was dissolved by the water and that this became a channel.

Does the water then change that's occupying this pool? Is it a stagnant pool?

A No, this is not a stagnant pool. The water moving through the limestone discharges at various points along the range it fills. If I could put up the map which I think was [47] Exhibit 3 again just briefly—Devil's Hole is here again. (Indicating.) The limestone range or small mountains are outlined by the contour lines in this area. And they are faulted or broken at this area. (Indicating.) And the limestones which normally would be adjacent to them are now deep beneath the surface of the valley. It may have been ruptured by a fault and dropped on the southwest side or alternatively raised on the northeast side.

The general direction of flow of ground water toward Ash Meadows is from the northeast, and where these rocks are fractured and subsequently dissolved we have the paths of greater permeability, one of which is generally through this area. (Indicating) Originally it probably discharged most of its volume from the opening of Devil's Hole itself now that the water level is some 50 feet below the ground surface aquifers, this water then discharged into the valley fill alluvium and the

relative water level from this well into Devil's Hole indicates there's a potential for movement into this valley, and this water is transported to the points of discharge in the rough alluvium.

Q Would it be correct in layman's way of looking at this to look to see that Devil's Hole is like a picture window moving out further then?

A Yes, it is.

Q Okay. You've mentioned alluvium and you've [48] mentioned aquifer. Would you please tell us what these are geologically and how these are related?

A Well, the limestone is what the layman would consider bedrock. It's a hard, well-integrated rock, fractures, forming resistant mountains and things of that sort.

The alluvium, on the other hand, or more properly the valley-filled sediment, some not alluvium in origin, are less consolidated. They consist of sands, gravels, clays, silts, caliche is developed within them, and there are spring travertines which are calcium carbonate deposits left by springs.

Q (By Mr. Germeraad) And the alluvium overlies then the aquifer?

A Yes; right. This overlies the limestone aquifer. The term "aquifer" is really a hydrogeologic term, not a rock unit—well, it's any identified rock unit or portion thereof, such as a faulted zone which will transmit water and yield it to wells.

So that we have basically two sub-systems within a single system. We have the Paleozoic limestone or solution channels and caves transporting water toward the southwest. It runs into the fault which terminates in the hills that's forced to rise until it finds a permeable zone in the valley fill deposit and then continues to the

southwest [49] and returns to discharge water in the Point of Rocks springs—this is Jack Rabbit here. (Indicating.)

Q (By Mr. Germeraad) Would it be correct to say then that a fault is then where blocks of land are offset which then creates many times a sealing barrier which then forces the water up into the alluvium?

A Yes. This is essentially what happened at this point.

* * *

BY THE COURT:

Q Dr., I wonder if you'd be kind enough to define the term "aquifer" again for us?

A Yes, sir. An aquifer is a rock unit or a portion of a rock unit, such as a faulted or broken zone, which transmits water easily enough that it can be produced from wells.

Q Is it a pool?

A No, sir. The water occurs in some types of aquifers, such as sand or gravel just as in the interstices between the grains in the limestone aquifer which transmits water towards the Ash Meadows area. The water occurs by [50] totaling saturating open joints in solution channels.

Q (By the Court) Isn't it a common belief that underground breaks, pools, chasms of some kind were contours that wells were drilled into?

That's not so?

A It is commonly believed, but it is rarely true. And a limestone aquifer of this sort you may encounter as large solution channels which normally are full right to the top. They don't have a free surface until you get to a place like Devil's Hole where you are actually observing the top of the water table.

Q (By Mr. Germeraad) Dr. Dudley, in further perhaps explanation, is there any evidence of what these aquifers may be like in drilling a well, any occurrence during drilling a well, which determines these?

A Yes. From the concussion of the drill bed you can determine the general rock type that you were in, and certain types are more likely to produce water than other types.

A sudden change in the amount of drilling mud which the well accepts, or perhaps some wells would even begin to flow, so that the mud flow is reversed.

Q Does the bit, the drilling bit, ever drop during the drilling of a well?

A Yes. There have been some wells in the Ash Meadows [51] area—Well No. 2 was one of them—in which the bit dropped a matter of a few feet, I believe, two places during the drilling of that well.

The area of Fairbanks Springs and northern Ash Meadows has been test-drilled for clay deposits, and there was one instance where the drill bit dropped several feet also.

MR. GERMERAAD: Your Honor, I'd also like to point out that in Nevada revised Statutes 534.010, "Definitions of Underground Water in Wells" and Chapter, the definition "Aquifer" means a geological formation or structure that transmits water, so there is also a limited legal definition to the extent that this hydrogeological term has been incorporated into the water statutes of the State of Nevada.

THE COURT: Thank you.

Do you have other exhibits?

MR. GERMERAAD: Yes, your Honor. Could we dim the lights once more? We have just a few more.

Q Now, this again is Exhibit 10?

A Right. The relative effects of various wells on Devil's Hole then are that Well 5, while it is pumping, has the greatest affect on Devil's Hole. Well 1 and Well 1B or 17 would have the next greatest affect on Devil's Hole, and the actual interception of flow here is not along this direct [52] radiating line, but rather the southwestward flow towards Devil's Hole is diverted up through or from this valley in which these wells occur, and is brought down this way. (Pointing.)

So that water which normally would discharge in the alluvium in the vicinity of Devil's Hole now is diverted, is brought down the valley, down to the Point of Rocks area to these wells.

Q (By Mr. Germeraad) Continue a little bit about the effect of these other wells, the strengthening affect?

A After Wells 1 and 17, Well 3 on the basis of the recovery in late 1971 and its connection with other wells in the area, and on the basis of the chemistry of its water, probably has the next greatest affect.

Well 2 has been very difficult to separate from Well 3 because of the similarity of their pumping history. However, its chemistry indicates that it probably is only poorly connected to Devil's Hole. The water is of significantly different chemical quality.

Well 13, although it is fairly well connected, is a low-yield well, so that it has a lesser affect than, say, Well 4 or 5, that type. Well 6, which lies to the east or to the west, excuse me, of Devil's Hole, near Crystal Pool, would be rated next.

Then the three wells that are in the north and [53] northwestern area, these are Wells 7, 8 and 10, we at the present time have no evidence with which to link them to the decline of water level in Devil's Hole.

THE COURT: What did you say about 6, Well 6?

THE WITNESS: Well 6 has a "Moderate" affect on Devil's Hole.

Q (By Mr. Germeraad) Dr. Dudley, if I understood you correctly, Wells No. 1, 2, 3 and 17 of course then it was not in existence back in September or August of 1971, you now say have a greater affect on Devil's Hole than Wells 4 and 6, yet in August when we filed the lawsuit, we recommended that at that time we asked the Court for an injunction against Wells 4, 5, and 6. This was later handled by stipulation between the parties.

Why is this, that there seems now to be greater affect in 1, 2, 3, 17 than in Wells 4 and 6 but not Well 5?

A In August when I was asked to recommend the wells that we seemed to have turned on, we had only a part of the hydrograph which I showed you earlier, and this hydrograph was dominated by the affect of Well 5.

Consequently, in addition to the small hydrograph that we had of these shorter periods of records, I also used the chemical similarity of the wells and just their proximity to Devil's Hole as indications of their probable affect on Devil's Hole. [54]

When Wells 4, 5 and 6 were turned off, we were then able to see the affects of Wells 1, 2 and 3.

Q (By Mr. Germeraad) Again, this would be then similar in effect to your earlier pump tests that because all the wells could not be isolated one at a time, sometimes you could not see the relationships until certain other wells were turned off?

A That's correct.

Q You mentioned chemistry, Dr. Dudley. What part does chemistry of the water play in identification of relationships between the wells and Devil's Hole?

A The chemistry—many of the points from which we were able to collect samples are remarkably stable. The range of total dissolved solids is from about 400 to about 475 in the vast majority of the wells and springs.

In some there is a greater degree of dissolved solids. Well 2 has the highest, being about two thousand parts per million; Well 1 has about eight hundred parts per million; Well 3 has about six hundred parts per million.

However, they have all the constituents that are present in the more typical water of Ash Meadows. And Wells 5, 4, 6, plus the major springs, such as Crystal Pool, King Pool, which is right near Well 4—these all have water which is very, very similar to Devil's Hole. The wells which have water which is dissimilar do have all the [55] ingredients. They just have more ingredients in addition.

Q (By Mr. Germeraad) Why would some seem to have more of one chemical or element than another?

A These wells have picked up additional dissolved solids of various types, particularly sulfate and chloride, which is not present to a larger degree in water of Devil's Hole. They have picked these up quite locally, probably right within this valley in here. (Indicating.) And it's here as they approach, as the water approaches these wells.

Q Then am I correct that the water then, depending upon its path through the underground, will pick up then some of the chemicals or elements in the rock that's passing through?

A This is correct. There are evaporite rocks very probably in this basin, and in addition some of the chemicals that have been added to the water may be from infiltration of irrigation water.

Q What does this chemistry, one way or another, tell you? I mean, how does this affect a connection, in layman's terms? We've technically gone through it, but now tell us how this fits into the picture?

A The chemistry of water is consistent with the limestone, the Paleozoic limestone being the source of the water moving through the alluvium through each and every well in the well field. [56]

Q (By Mr. Germeraad) Now, could you tell us, as an overview then, your professional opinion on the relationship of the pumping of these wells to the water level of Devil's Hole?

A I believe the data which has been collected and presented here do indicate a definite cause and effect relationship between the pumping as the cause and the decline of Devil's Hole as the effect.

Q When you show the pathway of the water along the right-hand side of Plaintiff's Exhibit 10—in other words, please correct me if I'm wrong—the water that would normally then flow in the direction of Devil's Hole because of the draw-down, let's say all year round, of Wells 1, 2, 3, 16 and 17 because you're pumping there, the pressure decreases there, and water which normally flows in the direction of Devil's Hole is diverted and brought to the area of Wells 1, 2, 3, 16 and 17 in that fashion?

A That is correct.

Q And then is there a different channel path for wells such as Well No. 5?

A Yes. Wells 4 and 5 are producing water which moves along the eastern boundary or the western boundary of the small range of hills. I can put this on just briefly.

Q And you are now referring to Plaintiff's Exhibit 3? [57]

A This is correct. Wells 4, 5, 13 intercept water which seeps through gravels, to the best of our knowledge, that had been shed from this small range of hills here. (Indicating.) And this would be the direct line of communication and the reason why the observation well here responded so quickly to the shutdown of pumping on September 9, 1971.

The connection between the wells in this small Point of Rocks well field is apparently up to this valley, as I noted earlier, we had two and a half feet of drawdown in the observation well 31dd, and then down through the faulted zone in here. (Indicating.)

* * *

(Plaintiff's Exhibits 9 and 10, previously marked for identification, are received in evidence.)

BY THE COURT:

Q May I ask the question, Doctor, about Exhibit 3: the dotted lines on Exhibit 3, what are their significance?

A Oh. These are the old road networks there.

Q They're simply roads?

A They're simply roads. And they do not coincide [58] in every detail with the records that are presently in the valley.

Q (By the Court.) All right.

MR. GERMERAAD: This is the last View-Graph exhibit. We have one final exhibit which we will not be using on the View-Graph.

THE COURT: Put the lights on, Mr. Bailiff. Exhibits 9 and 10 will be admitted into evidence.

MR. GERMERAAD: Thank you, your Honor.

I have an exhibit that I would like marked Plaintiff's Exhibit 11 for identification.

Unfortunately, I only have one copy of this map. It's up to you, your Honor. Perhaps when Dr. Dudley is explaining it, the attorneys for the defendants can come up, perhaps near your bench, so we all can look at the map.

There are different colors on here which designate different things.

THE COURT: Why don't we have the clerk bring the easel over and put it on there? I think I can see it.

MR. GERMERAAD: Thank you, your Honor.

THE CLERK: Plaintiff's Exhibit 11 marked for identification.

(Plaintiff's Exhibit 11, being a map, is marked for identification at this time.) [59]

Q (By Mr. Germeraad) Dr. Dudley, can you tell us what the different colored zones represent, please?

A Yes. The areas that are colored in red are fee lands owned by Spring Meadows Ranch as determined from the county tax records.

THE COURT: Is that legend explained on the chart?

THE WITNESS: That is written in on there; yes, sir.

A (Continuing) The areas colored in yellow, which are not written in—I could have them if you wish—are Section 15 leases, that is, land which the Ranch leases from the Federal Government. Devil's Home is at the position of this black dot. (Indicating.)

THE COURT: Are the pink or red areas patented mining land?

THE WITNESS: Yes; the red area is patented land.

The area that is uncolored is either federally owned lands which are not leased or else they are patented lands owned by other parties. That includes both categories.

Q (By Mr. Germeraad) Though it's not of a large scale, what else have you also located on this exhibit, Dr. Dudley?

A The wells are plotted here. They're very difficult [60] to see without examining the map closely. But the concentration of wells in the Point of Rocks area that we have discussed mostly, are right in this vicinity. (Indicating.)

BY THE COURT:

Q Do I understand it correctly, the pink or red areas are the defendants' patented properties?

A Yes.

Q Defendants—

A Yes.

Q —in this action. And the yellow is the properties leased to them?

A Yes; that's correct.

MR. GERMERAAD: Your Honor, at this time—I should have done this earlier—there was an error in the amended complaint as to the sections which were mentioned. I've mentioned this earlier this morning to Mr. Lionel, and by having the Court Reporter take down the sections, we can then orally amend the complaint, and I will file papers later formally amending the process, so that in our complaint, in paragraph 1, in the "Wherefore" clauses following paragraph 12, the sections of land which we had requested an injunction against pumping, except for domestic purposes, should read: "A lesser number." And there was one typographical error as well. [61]

These sections are: 17 South 50 East, Sections 28, 33, 34; 17 South 51 East, Section 31 and 32; 18 South 50 East, Sections 2 through 4 and 9 through 15; 18 South 51 East, Sections 5 through 8 and Sections 17 and 18.

MR. LIONEL: May I ask counsel what he's taking out?

MR. GERMERAAD: I have taken out the lands in a given area which are not patented by Spring Meadows; in other words, federally-owned land or land held by other parties not part of this suit, are not covered, and that's why I've made certain deletions.

THE COURT: Well, let's look at paragraph 1 of the amended complaint. Do you have a copy of that in front of you?

MR. GERMERAAD: Yes, your Honor.

THE COURT: Line 30. You say "Sections 25, 28, 31, 32, 33, 34 and 35, Township 17 South Range 50 East"?

MR. GERMERAAD: Right. And I am deleting 26, 31, 32 and 35, leaving line 30 to contain simply Sections 28, 33 and 34.

THE COURT: All right.

MR. GERMERAAD: On line 31, which now reads "Sections 1-4, 9-15 and 24," excuse me, 9 through 15, I am simply deleting Section 1, so that it will now read: "Sections 2 through 4 and 9 through 15." [62]

On the last line—

THE COURT: What about Section 24?

MR. GERMERAAD: Yes; Section 24 is also deleted, your Honor.

THE COURT: That's deleted?

MR. GERMERAAD: Yes, your Honor.

THE COURT: It's amended then, you wish to amend to include Sections 2 through 4 and 9 through 15, inclusive?

MR. GERMERAAD: That's correct, your Honor.

THE COURT: Of Township 18 South Range 50 East? All right.

MR. GERMERAAD: That's correct, your Honor.

On the last line where we have "18 S., R. 51 E.," there is listed Sections 5 through 8 and 17 through 19.

THE COURT: Yes.

MR. GERMERAAD: I am deleting simply Section 19, so it will be 17 and 18, as well as 5 through 8.

Up on the 30th line, where "31" and "32" were deleted, that should have been another line or phrase, and that is "T. 17 S., R. 51 E., Sections 31 and 32."

THE COURT: Now, wait a minute, you're not changing the Township and Range of 28, 33 and 34, are you?

MR. GERMERAAD: No. Those remain the same, your Honor. [63]

THE COURT: And you're adding?

MR. GERMERAAD: I'm adding "17 S. 51 E., Sections 31 and 32." I apologize for the typographical error, the "31" and "32" which I deleted in line 30.

THE COURT: "Township 17 Range 51 East"?

MR. GERMERAAD: Right. And those same numbers then would be carried over to the "Wherefore clause following paragraph 12 of the amended complaint.

THE COURT: Well, I'm wondering—let's see, that appears in the prayer, does it?

MR. GERMERAAD: Yes, your Honor, it does.

THE COURT: And also appears under "Motion for Preliminary Injunction"?

MR. GERMERAAD: That's correct.

THE COURT: Any objection to those amendments, Mr. Lionel?

MR. LIONEL: We have no objection, your Honor.

THE COURT: Mr. Paul?

MR. PAUL: No, your Honor.

THE COURT: Why don't you do this for us? Send to the Clerk and to counsel, with copies to counsel, amended page 1—I guess you have Section 26 there on the last line of page 5—amend pages 5 and 6 then of the amended complaint? Will you do that?

MR. GERMERAAD: Yes, I can, your Honor. [64]

THE COURT: Shortly?

MR. GERMERAAD: I will do it as soon as the secretary upstairs can type it up.

THE COURT: Yes.

Q (By Mr. Germeraad) Now, Dr. Dudley, you have on this Exhibit, Plaintiff's Exhibit 11, two areas outlined. Would you describe the outlined process, please, how these are designated?

A The black line with the hasher mark on it outlined here is the area that was included in the amended complaint before Mr. Germeraad deleted.

MR. GERMERAAD: And that, your Honor, really hasn't changed, except those sections within that outlined area that are not on the—

THE COURT: The boundaries are not changed?

MR. GERMERAAD: —the boundary of that outlined area has not changed; simply the sections that are not owned in fee by Spring Meadows have been deleted.

MR. LIONEL: Is that correct, counsel? Didn't you add Sections 31 and 32 which were not in there?

THE COURT: That's right. Township 17 Range 51 East was added.

MR. GERMERAAD: Yes. That is included on the outlined map.

THE COURT: That's included within the boundaries? [65]

MR. GERMERAAD: That's included within the boundaries on the outlined map, your Honor.

MR. LIONEL: Then you did change the boundaries by extending it—at least that's what you want to do now in the amendment to the amended complaint?

MR. GERMERAAD: That's correct.

Q And would you describe how that section is outlined, Dr. Dudley?

A Yes. That is the largest section here, which is outlined by the dashed black line with the hasher marks on it.

Q Now, is there another—

BY THE COURT:

Q So I may be oriented, counsel, is Range 51 immediately below Range 50? I'm looking at Exhibit 3. Is it east?

A Yes. It would be the township which is immediately east of Range 50.

Q That's what I thought. Well, Devil's Hole is in Section 36?

A That's correct.

Q Is that correct? And that's Township 17 Range 50?

A Yes.

Q Now, we're talking about Sections 31 and 32 of Township 17 Range 51? [66]

A That's correct.

Q (By the Court) Is that on your chart there, on Exhibit 11?

A Yes it is, sir. Those two sections, 31 and 32, of Township 17 South Range 51 East are these section right here, and here. (Indicating.)

Q Oh, yes, I see; yes.

A They're the two sections lying immediately to the east of Devil's Hole.

Q Yes. Devil's Hole is in Section 36. All right. I understand.

Q (By Mr. Germeraad) Now, could you explain the other designated area?

A The line which begins here is a dashed black line, goes north one mile, east— or west, excuse me—two miles, north another two miles, west half a mile, north one mile, west half a mile, and then up to the northern limit of the area—is a line which separates the area in which we have a number of wells, number of pump tests and feel that we have demonstrated clearly the relationship of these wells to the water level in Devil's Hole.

That area lies to the east of this dashed line. To the west of this dashed line we do not have sufficient information because of the lack of wells to observe in this area to state with certainty that the withdrawal of water [67] from this area would have as severe an effect on Devil's Hole as would those that are in the eastern area.

BY THE COURT:

Q I don't understand—this isn't relevant to what you're explaining—but I'd better ask it before I forget it—since Well 6 is almost two sections removed from Devil's Hole to the west, and you described the flow of water from the northeast, how does Well 6 pumping have an impact on Devil's Hole?

A The water which moves through the limestone and then discharges at the edge of the mountains in the vicinity of Devil's Hole moves from there, not only spreading southward, but also spreads westward toward Crystal Pool, slightly north—no, slightly south; Crystal Pool is right here. (Indicating.)

Well 6 is intercepting much of the flow that goes from Devil's Hole normally towards Crystal Pool. Initially, the interception of this water discharging out of the limestone in the vicinity of Devil's Hole, and then discharging finally at Crystal Pool, recently this interception was only a few hundred gallons per minute.

By September of 1971, when Well 6 was turned off by the agreement with the Government, nearly 1,200 gallons per minute of its 1,370 g.p.m. discharge was actually being diverted from Crystal Pool. [68]

Q (By the Court) My question was, how does pumping from Well 6 have an impact on the water level of Devil's Hole, not Crystal Pool?

A By increasing the amount of flow which is required, which the Devil's Hole area is required to deliver by means or in order to satisfy the flow of the spring and to satisfy the demand of the well, the amount of water is increased by means of drawing down Well 6, lowering the pressure of Well 6. This then lowers the pressure backup at the Devil's Hole area.

Q (By Mr. Germeraad) So, correct me if I'm wrong then, the additional amount of water which Well 6 pumped exceeding the flow from Crystal Springs was drawing water maybe through Devil's Hole and somehow then lowering the water level. Am I correct or is this incorrect?

A This is correct.

Q Then would you please conclude by giving us your professional opinion as to the pumping from the wells once more, the sections of land in the smaller designated area, and then the sections of land in the entire enclosed area, and its effect on the water level in Devil's Hole, please?

A Okay. The wells which I have indicated previously have the greatest affect on Devil's Hole and their relationship to this area are Well 5, located at the tip of the pointer here; Well 1 located at the tip of the pointer, [69] Well 1B, then 3 and 2; Well 4 is very difficult to find here—Well 4; Well 6 is located here. (Pointing.)

The wells which we have not been able to tie to the water level fluctuations in Devil's Hole are Well 10, located here (pointing), Well 7, located here (pointing) and Well 8.

Q (By Mr. Germeraad) Wells 7, 8 and 10 then are outside of both designated areas?

A That is correct.

Q And that is the reason that those areas then were not included within the boundaries of the map?

A This is correct. Now, what else did you want? [70]

* * *

Q (By Mr. Germeraad) Would you please in summary form just give us your professional opinion upon the relationship of the irrigation pumping and water level in Devil's Hole, please, as it relates to the map?

* * *

A The more limited area which is east of the line includes the Wells Nos. 1 through 6, 13, 16 and 17; also, our Wells 11 and 12. This is the area that I

feel we have a definite relationship between pumping and the decline of water level in Devil's Hole.

The area lying further to the west, which is included in the complaint, is one in which we will have certainly a lesser effect but we potentially, because of the [71] geological environment, we potentially would have an effect on Devil's Hole also. This line generally follows a linear feature in the topography which I believe is a fault which is actually controlling the location of springs such as Crystal Pool.

For this reason, it is possible that pumping to the west of this fault line would not have as severe an effect as pumping east of the fault line.

MR. GERMERAAD: That concludes Dr. Dudley's testimony, your Honor.

THE COURT: Cross-examination.

CROSS-EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Dr. Dudley, you've made many trips out to the Ranch, haven't you, during the past two years?

A Yes I have, sir.

Q And you dealt with Mr. Barnett out there, one of the defendants?

A That is correct.

Q And he's the Ranch Manager?

A Right.

Q Has he been very cooperative with the U.S.G.S.?

A Yes. Mr. Barnett has been very courteous and cooperative.

Q And actually has spent money to assist in what was [72] being done out there to make determinations of the effect of these wells on Devil's Hole?

A Yes.

Q (By Mr. Lionel) And in what respect would they expend money?

A Well, the Ranch purchased Parshall flumes to put on the springs and they purchased recorders with which to get continuous records of the stream discharges. They purchased the discharge meters, which unfortunately did not work out because of the substance in the water.

Q All right. Now, all these wells that you talked about, the wells which you indicated would have an effect upon Devil's Hole, are those wells on land which is owned in fee by the defendants, Mr. and Mrs. Cappaert?

A All with the exception of Well No. 13.

Q All except No. 13. Now, let us take some of these wells independently. For instance, supposing that Well No. 1 continued to operate, would that effect the level of the water in Devil's Hole? Let's forget all the other wells.

A If Well No. 1 were operating alone? This is what you're asking?

Q Yes.

A It would affect the water level in Devil's Hole; yes.

Q And it would, in your opinion, if that well, we [73] continued to pump that well only, and did not pump the others, the ledge you're talking about would no longer be submerged after a period of time?

A After a very long period of time—it would take much longer if only Well No. 1 were pumped.

Q (By Mr. Lionel) Well, about how long?

A It's very difficult to say without being able to run a very long term test on Well No. 1 running alone.

Q Supposing only Well 5 was being operated, and none of the other wells, what would its effect have upon the water level in Devil's Hole?

A Apparently on the order of two-tenths of a foot which is the recovery that took place when 4, 5 and 6 were shut down; most of the effect of that was from Well 5.

Q Two-tenths of a foot over what period?

A This would be over the period of a month; on a sustained uninterrupted pumping, this undoubtedly would draw down somewhat more on a gradual basis.

Q How about if we just operated Well 3?

A Its effect would be somewhat less than Well 1 because its discharge is smaller than that of Well 1.

Q But it being operated by itself would over a period of time lower the water level in Devil's Hole; in your opinion?

A It would lower the water level, perhaps not to [74] the bottom of the shelf, if operated alone.

Q (By Mr. Lionel) How about Well 4, what would your testimony be in that case with respect to the water level?

A About the same as Well 3.

Q Now, how do you know these are fee lands, the lands that are marked in red on this—let's see, what is the number?—

MR. GERMERAAD: I believe it's 11.

Q (By Mr. Lionel) (Continuing)—on Exhibit 11?

Dr. Dudley, how do you know that these lands which are red are fee lands?

A The red areas were provided colored on that map by the Bureau of Sports Fisheries and Wildlife who had their real estate section examine the tax rolls as of the date it is written on there, May, 1972; I believe May 3.

Q Do you know how long those lands have been held in fee by the defendants and/or their predecessors? [75]

* * *

A No, I cannot.

Q (By Mr. Lionel) I see. Do you know the background of any of these lands? Are you familiar with the State's selection which occurred in Nevada with respect to those lands during the last century?

A No.

Q Have you ever heard of State selection?

A No, I haven't.

Q I see. Now, this water that comes into Ash Meadows, where does it come from?

A It is collected over a large underground drainage basin, which extends over perhaps forty-five hundred, four thousand five hundred square miles. It extends to the east, to the northeast and to the north; includes the area of the Nevada Test Site and many ranges lying to the east of the Nevada Test Site, ranges and valleys.

Q Some of it actually comes from more than 70 miles away; isn't that correct?

A That's correct.

Q And this basin is about 70 miles, you'd say, in length; and about in area 60 miles wide or more; is that correct?

A That's approximately correct; yes.

Q And this water just flows under the ground, and this limestone formation, and it seeps through the ground; is [76] that correct?

A That is correct.

Q (By Mr. Lionel) And that ultimately it is discharged in certain springs in Ash Meadows?

A That is correct.

Q And it's estimated that the normal spring discharge in Ash Meadows is about 17,000 acre-feet a year?

A That's correct.

Q And it's also estimated that the recharge in that area is about 7,000 acre-feet a year; is that correct?

A I believe that figure to be high myself.

Q You figure it's high?

A I figure that that's too high for recharge directly into the Ash Meadows area; yes.

Q Well, is there considerable literature with respect to that, Dr. Dudley?

A No. There's very little literature with respect to the amount of recharge in the Ash Meadows area; however, arid low areas in the State of Nevada typically receive very little recharge because of the deficiency of soil mositure most of the time.

Q Well, that recharge would come from the mountains, wouldn't it?

A Yes. The recharge which enters the Ash Meadows ground water system is derived primarily from the mountains [77] within the basin.

Q (By Mr. Lionel) These are Spring Mountains, aren't they?

A Yes.

Q So that recharges the water which goes back in under the ground as a result of the precipitation which hits the mountains and then flows into the ground?

A That's right.

Q How much recharge would you think there is in the ground in Ash Meadows?

A How much recharge do I think?

Q Yes; how many acre-foot?

A I would be very surprised if it were more than one thousand.

Q Do you know anyone who has indicated that the recharge in the Ash Meadows area would be as little as one thousand acre-feet a year?

A No.

Q Who are the authorities with respect to the hydrology of the area, which would include the recharging of the ground—recharging?

A Well, the authorities that have studied the Amargosa desert ground water system are Walker and Eakin, published Reconnaissance Report 14.

Q Is that the 1963 report? [78]

A That's the 1963 report.

THE COURT: What's the name of the report?

THE WITNESS: It's Ground Water Reconnaissance of the Amargosa Desert, I believe, or Land and Related Water Resources.

Q (By Mr. Lionel) Done by whom?

A This was done by Walker and Eakin.

Q You're talking about a 1963 Report No. 14?

A Right.

Q Anybody else?

A Yes. There's a report that is currently—actually I believe it has now been released to open file status —U.S. Geological Survey by Winograd, in which he has examined the entire Ash Meadows ground water basin.

Q What year was that?

A Well, it would be 1972; just recently been released.

Q Now, you say this water comes from a long ways away, it comes into Ash Meadows from as far as 70 miles away?

A That's correct.

Q And I believe you indicated, in answer to your Honor's questions there are no underground pools or streams under the water—this is what you call underground water which percolates under the ground? [79]

A That's right.

Q (By Mr. Lionel) Commonly called underground percolating water?

MR. GERMERAAD: Your Honor, I would like to point out at this time in a manner of an objection that the State law of Nevada in their revised statutes has a distinction between percolating waters and aquifers, both of which are under the general category of underground water, and that Dr. Dudley has previously talked about aquifers and their interrelationship with percolating waters.

I would just point this out for the Court because there is perhaps a difference under the law which is important to this case.

THE COURT: While you're talking about that, do you have that statute here?

MR. GERMERAAD: It would be Title 534, your Honor.

MR. LIONEL: Let me have an answer to the question. I assume that was not an objection to the question, your Honor.

MR. GERMERAAD: No. It was just a point, your Honor. I'm sorry.

Q (By Mr. Lionel) Would you want the question read back?

A Yes; if you would, please? [80]

MR. LIONEL: Would you please, Mr. Reporter?

THE COURT: Mr. Germeraad, is it the Government's position here that the definitions spelled out in the Nevada State Water Law are controlling in this case?

MR. GERMERAAD: It's not necessarily controlling, your Honor, but I do think it can help the Court understand the testimony and certainly Dr. Dudley's testimony has been vast as to what the State of Nevada

considers percolating water and aquifers, which is more of a defined area.

Under Nevada State Law, percolating waters are defined as an undetermined pathway or source of water while an aquifer, which Dr. Dudley was testifying about, are definite pathways. And they are treated differently under Nevada law. And that may perhaps have certain significance with the legal arguments of the intervenor, the defendants and the plaintiff, your Honor.

MR. LIONEL: Well, I would submit, your Honor, that would be argumentative.

THE COURT: All right. Thank you.

Please read the question back.

(Last question, found on page 79, lines 22 to 25, and on page 80, lines 1 to 3, was read back to the witness by the Court Reporter.)

A In a hydrologic sense, these would be called underground percolating waters, according to the legal [81] definition which Mr. Germeraad has raised, it would be different.

Q (By Mr. Lionel) Well, we'll let Mr. Germeraad argue that, Doctor.

Now, is this a defined aquifer?

A Which?

Q The aquifer from whence the water comes which is pumped in these wells?

A Okay. You're referring then to the limestone aquifer which underlies the Ash Meadows ground water basin?

Q I'm talking about the aquifer from whence all this water comes, which extends in a northeasterly direction for about 70 miles?

A Yes. It is formally defined by Winograd as a lower carbonate aquifer, and includes limestone and dolomite ranging in age from Cambrian to Devonian.

Q When did Winograd define this?

A In his report recently published.

Q This 1972 report?

A That's correct.

Q Now, prior to 1972, was this considered to be a defined aquifer?

A Yes. It has been considered as the same lower carbonate aquifer by persons and groups which work with the Nevada Test Site in hydrology. Basically, Winograd's work [82] was done in the early middle 1960's, and these terms have been in common use with the Geologic Survey people.

Q (By Mr. Lionel) How long?

A Well, since I became associated with the group in 1965.

Q How long before that; if you know?

A In the published literature, the terms do not appear until about 1967, I believe.

Q Doesn't the question of whether—at least I'm not talking about whatever it may be under Nevada statutes—when you discuss a defined aquifer, you're talking about an aquifer that you know the paths of the water as they come through that aquifer; is that correct?

A Well, you know them generally; yes.

Q Generally. And when is the first time in the literature that you were aware of that there was anything which indicated the paths of the water that flow through the limestone formations and are discharged in Ash Meadows?

A The first that were known to me were the manuscript of Winograd's Report.

Q Which is the new report '72?

A Yes; only I saw the manuscript of it some years ago.

Q I see. Have you read all the literature with respect to the limestone aquifer which discharges water into [83] Ash Meadows?

A I've read a considerable portion of it; yes.

Q (By Mr. Lionel) Have you had all the reported literature?

A No, not all the reported literature.

Q Is there any reason why you haven't?

A Yes; just not enough time to do all the field work, analyze all the data, and prepare my own report.

Q Have you read the interim report of the Inland Basin Projects, Armargosa Project, Nevada and California, done by the United States Department of the Interior, Bureau of Reclamation, dated November, 1968?

A I have examined the report. I've not read it in detail.

Q What was the purpose of that report?

* * *

A The purpose of the Amargosa Project of the Bureau of Reclamation was to examine the feasibility of developing a centralized irrigation water supply through the area, commonly known as the Amargosa Farms.

Q And do you know whether or not the Bureau of [84] Reclamation recommended that there be such a project?

A They recommended that there be a feasibility study.

Q (By Mr. Lionel) To cost seven hundred fifty thousand dollars?

A I believe that's correct.

Q Do you know what happened to that?

A No, I don't know what the present status of it is.

Q You don't know whether the pupfish situation has any relationship to what has happened to that matter, do you?

A I have no direct knowledge of what has happened to it.

Q No direct knowledge.

Now, you indicated that this water which comes into Ash Meadows comes from a great distance away, including the area where the Nevada Test Site is; is that correct?

A That is correct.

Q Now, if the Nevada Test Site was to pump water out of the limestone in that aquifer, and there was substantial pumping, would that pumping affect, after a period of time, the water level in Devil's Hole?

A If there was a—

THE COURT: Pumping from where? I didn't understand your question.

MR. LIONEL: From that Test Site. [85]

THE COURT: Oh, from that Test Site.

A The levels of water at the Nevada Test Site have been monitored so that we are regionally aware of the effect of pumping in that area. It has been very slight. The amount of pumpage from the Test Site has been considerably less than the rate of pumpage in the Ash Meadows area.

Q (By Mr. Lionel) How far away from Devil's Hole is the Nevada Test Site where they're doing the pumping now?

A Well, the southern tip, near the two of Mercury, which is the headquarters, is approximately 20 miles northeast.

Q Is that the general area where they're doing the pumping?

A From there spreading northward into Frenchman and Yucca Basins and some in Paiute Mesa Basin, although the amount there is very small now.

Q And let's assume that there's some portion of the Test Site which is, let's say, about 40 miles from Devil's Hole; is that accurate?

A That is accurate.

Q Now, supposing there were substantial pumping 40 miles away at the Test Site from the limestone aquifer, would that substantial pumping over a period of time affect the level in Devil's Hole?

A Over a period of perhaps decades you would see a [86] small affect; yes.

Q (By Mr. Lionel) As a matter of fact, that same thing would be true if there was pumping any place in this limestone aquifer, even 60 or 70 miles away?

A This is true if you are able to measure the water level accurately enough to go that far, then there would be very, very little effect, but most of the recharge of the basin would be taking place between the center of pumping and point of discharge near Devil's Hole.

Q Let's go to Indian Springs. Do you know how far away from Devil's Hole Indian Springs are?

A Oh, roughly 40 miles.

Q How far, 40 miles? All right. If there were pumping of any substantial size, let's say 2,000 gallons per minute, would that pumping have an effect upon the water level in Devil's Hole, after a period of time?

A It is in a rock formation there which would communicate with the same unit draining to Devil's Hole, and consequently there would be again a very small perhaps indiscernible effect on Devil's Hole.

Q Well, that would really depend upon the amount of pumping and the period of time; isn't that correct?

A This is very true.

Q As a matter of fact, that's true with respect to any pumping which would be done south of Highway 95; isn't [87] that true?

A Yes, except in the direct vicinity of Lathrop Wells, then we get into a different ground water system, which is reasonably well isolated from the Ash Meadows area.

Q (By Mr. Lionel) But what you're saying in effect is, that if there were any substantial pumping in this same ground water system, which is this limestone aquifer, that after a period of time that would effect the level of water in Devil's Hole?

A That is correct.

Q Now, you testified before that this ledge was necessary for the preservation of the pupfish in Devil's Hole; did you say that? I didn't quite recall the precise context.

A Yes, I did say that.

Q Is that within your sphere of expertise?

A No.

Q Or is that because somebody told you that?

A I said that in the sense that I had been told that by those within whose sphere of expertise it is.

Q So you're not saying that? You're saying only because someone told you that?

A Yes. I'm not a biologist.

Q What?

A I'm not a biologist. [88]

Q (By Mr. Lionel) I understand. Who told you that?

A I don't really recall at the moment. I would imagine the first I heard of it is when I met with a committee of people in the Geological Survey to choose a project chief for my study. I would say that I was told of the importance of the ledge at that time.

Q And in effect your studies were done predicated on that basis; is that correct?

A That's correct.

Q And not because of anything that you know with respect to extinction by reason of the fact that the ledge might no longer be under the water?

A This is correct.

Q All right. Now, you say there is considerable evidence that in the past the water level in Devil's Hole has been higher than it now is, and I'm just not talking a few inches—well, let's go back, if I might. The water is approximately 50 feet below the surface in this standpipe hole; isn't that correct?

A That's correct.

Q And you say there's considerable evidence that in the past the water level has been higher, substantially higher, than it presently is; isn't that correct?

A That is also correct. [89]

Q (By Mr. Lionel) And how much higher?

A The depositional rings in Devil's Hole indicate that at least greater than 10 feet and perhaps as much as 17 feet higher. There are other solution features which may be higher core lines which are not terribly visible because of the walls being somewhat unstable. The walls are continually giving way a little bit at a time.

There is a deposit of spring travertine downslope from Devil's Hole, which indicates that Devil's Hole itself probably was a flowing spring.

Q And that the water at one time was up to the top?

A That's correct.

Q And is there any evidence that at any time—well, is it a fair assumption—or is there any evidence to your knowledge that these particular fish were in that Devil's Hole during the period that there was a spring and the water came clean up to the surface?

A I would say that the ancestors of those fish—

Q I beg your pardon?

A The ancestors of the present species undoubtedly were there at that time.

Q Why do you say that?

A Because of the nature of the pupfish in the Ash Meadows area, the other specials could be everywhere there's a [90] drop of water on the surface.

Q (By Mr. Lionel) Well, how do you now they were ancestors? How do you know these were not the same species that are there now in Devil's Hole?

A I do not know that directly.

Q And from what you told me, Doctor, I think it's a fair assumption that this water level was at different heights or different stands over the course of may years between where it now is and the top?

A This is correct.

Q Is there any evidence which you have found which would indicate whether there was something there which would be perhaps the equivalent of this rock ledge that they now use?

A Yes. There are numerous boulders, some flat-topped, erosional shelves, that exist above the present water line, which could have provided the same function to the fish as this ledge at any of the higher levels.

Q What is the function that this ledge now performs for the fish?

A I have no expertise on that, other than what I've heard.

Q And what have you heard?

A I've heard that the function of the ledge is to provide the area in which algae grows and from which then they [91] feed, and it is also their breeding place.

Q (By Mr. Lionel) And you have seen evidence that there were other areas higher up, going up towards the surface, which could have been used for such purposes in years gone by?

A Yes.

Q How about below the level of the water?

A Below the level there is nothing similar until you get to a depth of eighteen and then sloping down to about twenty-three or twenty-four feet.

Q What did you find there at that level?

A There is a small rock fall area which would provide a similar environment except that it does not receive sunlight, and would be on a gravel-type material rather than one uniform rock ledge.

Q Well, except for the sunlight—well, strike that. What's the sunlight for?

A Well, again I'm not a biologist. To my knowledge, the sunlight enhances the growth of the algae on which they feed.

Q Now, at the present time there is in Devil's Hole an artificial shelf; isn't that correct?

A That is correct.

Q For the purpose of taking up, if possible, the function of the shelf if the water level should drop below it? [92]

A That's correct.

Q (By Mr. Lionel) And for the purpose of growing algae on there; is that correct?

A I'm not familiar with all the design criteria for the shelf and the reason for doing it any particular way.

Q When is the last time you've been in Devil's Hole?

A The last time I was in Devil's Hole was in March.

Q Did you observe the artificial shelf?

A Yes.

Q Was there algae on it?

A I don't really know.

Q When was it put in?

A When was it put in? Before I started on the program. I don't really know. It was 1970, sometime.

Q Have you ever seen algae on it?

A I've never examined it to see the algae.

Q Have you ever seen fish on it?

A I've seen them wander by it, occasionally swim over it.

Q Do you know, are there lights above it?

A At the present time I believe there are not.

Q Have you seen lights above it?

A I have.

Q Did you inquire to determine the purpose of those lights? [93]

A It was to provide the equivalent of light that normally the sun would provide on the natural shelf.

MR. GERMERAAD: Your Honor, I'd like to have a standing objection to the breadth of cross-examination that Mr. Lionel is conducting in an area which Dr. Dudley has already said he is not of primary competence, when we will have two witnesses who are experts on the fish testify about their habits and relationship.

I realize that Mr. Lionel is entitled to ask him about his observations, but getting into questions of his opinion, he cannot have an expert's opinion. I think he's going rather far afield, and with your permission I'd like to have a standing objection to the continuance of such questions.

THE COURT: All right. Your objection will be noted.

Q (By Mr. Lionel) Doctor, in your affidavit you stated that there is no evidence preserved on the walls of Devil's Hole that the water level in the cavern has ever been lower than it is at the present time.

Now, why do you say there's no evidence preserved on the walls of Devil's Hole?

A Why do I say that?

Q Yes.

A Because I dove in there and examined it myself, [94] and was unable to find anything that is comparable to the features shown above water level.

Q (By Mr. Lionel) What was the main feature that you were seeking that would have been comparable to what you saw above the water level?

A As I explained earlier, with the so-called bathtub rings, with the deposition of calcium carbonate, in a more or less horizontal plane.

Q Wouldn't those rings, those carbonate rings, be washed away by being submerged under water for a long period of time?

A The water in Devil's Hole is already so high in calcium, magnesium, and the carbonate ions that the dissolution would be a very, very slow process. We have difficulty keeping these ions in solution when we take water samples.

Q Now, are you aware that there were some divers that were in the hole last week; is that correct?

A Yes.

Q And two divers went in, working for the Desert Research Institute of the University of Nevada; is that correct?

A That is correct. That's the way it's been told to me; yes.

Q And also there was a diver that went in [95] representing the Government; is that correct? You've heard that?

A Yes, I've heard that.

Q (By Mr. Lionel) And did you see the reports that were submitted by the two divers who were in for the Desert Research Institute?

A I saw the report about five minutes before Court convened this morning. I have not examined it carefully.

MR. LIONEL: May we have this marked, please?

Q Do you know either of the two people that did this report, Peter J. Mehringer of the Department of Anthropology of Washington State University or C. Vance Haynes of the Department of Geosciences of Southern Methodist University?

A I do not know either named person. I've heard about them both.

THE CLERK: Defendants' Exhibit A marked for identification.

(Defendants' Exhibit A, being a report, is marked for identification at this time.)

Q (By Mr. Lionel) Did you examine the entire report, Doctor?

A I scanned the entire report. I have not read everything carefully. [96]

Q (By Mr. Lionel) Now, in the report the authors talk about this, what they call this Type A carbonate deposits. That's the bathtub ring thing you were talking about; isn't that correct?

A That is correct.

Q And I think you indicated in your direct testimony that if you found any such ring there, that would be pretty strong evidence that there was a lower level in the past?

A That is correct.

Q And you also indicated that if you had one of these rings, it would probably not be associated with anything else because the Devil's Hole is sort of at an angle, isn't that correct, and these bathtub rings run really horizontal?

A Well, what I said is that the stratified rocks are dipping so that there would not be other visual features which would conflict with these.

Q Now, may I perhaps refer you to page 9 of Defendants' A?

MR. GERMERAAD: Excuse me, your Honor, if there is an extra copy, I would certainly appreciate looking at it while he asks some questions.

THE COURT: Yes. Do you have another copy, [97] Mr. Lionel?

Q (By Mr. Lionel) Now, I'd like to start reading from the middle of the page, Doctor: (Reading:)

"We interpret no single feature or combination of features"—

MR. GERMERAAD: Your Honor, I'm going to object to using a document supposedly written by two parties; if those parties are not even here to identify this as their report, there's no connection, and to predicate all these questions on this I think is somewhat

unreasonable, because certainly I am denied any chance to cross-examine the authors, and if we are to use their words as evidence, this is just inadmissible. It's clearly hearsay.

THE COURT: If this were a well-recognized scientific work, and I don't say that it isn't, then, of course, you would cross-examine it from the work itself; otherwise it would have to be received in evidence.

MR. LIONEL: Except this, your Honor. The witness testified that he went down beneath the ground. He has made an affidavit in which he said that there is no evidence preserved on the walls of Devil's Hole.

And I haven't offered this in evidence, your Honor, and I'm using this from the standpoint of cross-examination.

MR. GERMERAAD: Your Honor, if he's simply [98] going to use it as a method of cross-examination, he need not even identify it for the Court. He can simply read it and then come up with a question the substance of which he can ask Dr. Dudley. There's no need for the report.

MR. LIONEL: That's what I'm doing.

THE COURT: If the authors' findings were different from this witness's, it would certainly have evidentiary effect, and I think you should call the authors, or in some other fashion obtain the admission of the report before you cross-examine him.

MR. LIONEL: Well, your Honor, this report was only completed apparently late Friday night, and the authors are not here. They're gone.

But I would like to ask him about certain things in here, your Honor, to test his powers of observation and opinions as an expert.

THE COURT: In effect it would depend somewhat on the weight or effect to be given to the report itself. I don't know what it says. Suppose the report says, "We went down there and we found there was a lower level at such-and-such a distance from the present surface," the only purpose you'd have in that is impeachment: try to convince this Court that there was a lower level.

MR. LIONEL: Well, theoretically, your Honor, I could ask him these questions, and I could bring these [99] people in, and I may have some of that evidence.

THE COURT: Well, you can approach that at the proper time. But the objection will be sustained. You can't examine on this report.

MR. LIONEL: Yes, your Honor.

Well, may I do this, your Honor? May I ask the witness if there was a carbonate deposit similar to those occurring on the walls of Devil's Hole above the water level, would that indicative that the water level of Devil's Hole was a lot lower than it now is?

MR. GERMERAAD: I'm sorry, but could that be re-read for me for my purposes, please?

THE COURT: Yes. Read it back, please, Mr. Reporter.

(Last question read back.)

Q (By Mr. Lionel) Strike the word "lot." Would it indicate that it was lower?

A Well, if this were not only similar but were indeed of the same origin, yes.

Q All right. Now, Doctor, supposing there was a nearly horizontal groove extending for a distance of about seven feet below the surface of the water, and the groove could not be traced on the opposite wall further along the irregular surface, would that be some

indication that the water level in Devil's Hole was lower at some time than it [100] now is?

A One would have to look very carefully at that particular group. It could be a joint; it could be something that had just resulted from rocks falling away—there is, as I mentioned before, a pile of rubble about 18 feet below the present water surface. Some of this would have come from perhaps material dropping from that locality.

Q (By Mr. Lionel) But supposing in addition, Doctor, that there was a shelf with a surface depth which corresponded approximately to the groove which occurred on a portion of a large boulder, might that be some indication that the water level was lower?

A If it were a clearly defined shelf and a depositional shelf; yes.

Q Doctor, do you have any opinion as to whether or not the water level at Devil's Hole was lower than it now is at some time in the past?

A Yes, I do have an opinion. I don't believe that it has been lower.

Q What evidence do you have to support that?

A Because I did not observe nor did three trained divers instructed by me what to look for, nor did they observe any features which were identifiable as being comparable to those above the present water level.

Q In what respect were they trained divers? [101]

A They're from the National Park Service, Lake Mead. They inspect the dam at Lake Mead. They are the types of men then who are excellent at observing features that are, looking for small irregularities in the dam.

They are trained to look under water for people having boating accidents, and things of this sort.

Q (By Mr. Lionel) Were they geologists?

A They were not geologists.

Q Were they hydrologists or geohydrologists?

A No, they were not.

MR. LIONEL: Your Honor, I think I'm going to be able to tie this up with a witness that's here that we have subpoenaed.

Q Now, supposing there was a shelf, Doctor, partly covered by rockfall, which occurred on the northwest wall at the junction of the rockfall in the center of the hole, and there is a rockfall in the center of the hole; isn't there, Doctor?

A Yes, there is a large keystone block in there.

Q And supposing the shelf were exposed for approximately two feet and is approximately a foot wide and is 23 inches below the present water surface, and above this shelf, exposed for only about a foot is another three-inch wide smooth ledge at about 14 inches depth, corresponding in depth to the lower part of the corresponding solution [102] groove which I just mentioned, might that be some indication that the water level was lower?

A Well, I examined that general area, and I did not observe anything that sounds like that description.

Now, if that were so, yes, that would be one possible interpretation of it.

Q (By Mr. Lionel) What would cause a smooth ledge at about 14 inches depth below the water?

A One would have to look at it to determine why it was smooth. Is it smooth because something is deposited on it, or has it been cut off? It's very difficult to tell.

Q But isn't a smooth ledge a pretty good indication that there was water level approximately at the height of that ledge?

A It is a frequent indication that a smooth ledge, on careful examination, is shown to be deposition.

Q Now, did you ever notice any difference in color of the limestone below the water?

A Yes.

Q And where did you notice and observe that?

A Well, there are differences on the hanging wall in some areas, the lower boundary of the color change is rather irregular and it goes along more with the depositional pattern of calcium carbonate that has been deposited from the water. [103]

Q (By Mr. Lionel) But could the difference in color have anything to do with the difference in water level?

A It could have; but not necessarily.

* * *

Q (By Mr. Lionel) Doctor, I'd like to clarify something, if I might. We discussed the recharge in that area. I'm talking really about the desert, that basin, that Ash Meadows area, now, is it correct that it's estimated to be about 7,000 acre-feet per year recharge?

A No. The recharge over that basin, the average annual recharge, probably matches very closely the average annual discharge, which is about 17,000 acre-feet per year.

Q You mean there is a recharge of about 17,000?

A Over the entire area of the Ash Meadows ground water basin, that is, the 4,500 square miles; yes. [104]

Q (By Mr. Lionel) And how much water would really be available in the area here that we're talking about for use? You have about 17,000 feet of spring discharge; is that correct?

A That is correct. And that is essentially the entire discharge of the basin.

Q What would be the perennial yield of that basis, would you say about 34,000 square feet—I mean, 34,000 acre-feet?

A Not without lowering the water level.

Q But would the perennial yield be about 24,000 acre-feet without lowering the water table?

A No, without lowering the water table, it is about 17,000 acre-feet.

THE COURT: Not per year? You said "perennial"?

MR. LIONEL: I'm talking about the perennial yield of water there—and that would be not mining the water; that would be the water.

Q And that, you say, is what appears in that Walker and Eakin report and in that Winograd paper that just recently came out?

A Yes.

BY THE COURT:

Q What is the recharge? [105]

A About 17,000 acre-feet of water per year.

Q (By the Court) I thought you told us one thousand before?

A I understood Mr. Lionel to be speaking only of the Ash Meadows area itself, not of the entire Ash Meadows ground water basin.

Q (By Mr. Lionel) Well, let us perhaps clarify this. There is a certain discharge of water, natural spring discharge, in the Ash Meadows area; is that correct?

A That's correct.

Q And all that discharge is on the land which the defendants own?

A I didn't understand that, sir.

Q Most of those springs are the springs you have discussed before, that you testified concerning?

A That's correct.

Q Now, I'm asking you, without lowering the water table in that area, how much additional water besides the natural spring discharge would be available?

A Without diverting springs? Well, none.

Q But how much would be available for use, say, for farming purposes without lowering the water table in that area?

A For very small withdrawals, there would not be a significant lowering of the water table, such as for domestic use or stock-watering but the withdrawal of a thousand acre-feet [106] or more per year, and there would be a lowering of the water table, as has occurred.

Q (By Mr. Lionel) You mean as a result of this pumping, this has affected the water in Devil's Hole?

A This is correct.

Q But if you would only use the amounts of water which is the perennial yield of a particular area, would that normally lower the water table?

A Over a long range, if you increase the total withdrawal from the basin, you must lower the average water table within that basin. If you withdraw it near the discharge area of the basin, such as the Ash Meadows area proper, then this is where the maximum lowering will occur.

Q So that even though the amount of water which you use is the amount of, say, spring discharge plus the recharge, that would still lower the water table?

A Well, any recharge which does occur locally is accounted for in the spring discharge. This is part of the overall recharge of the basin.

Q Now, Doctor, I'm referring you to the Ground Water Resources Report 14 we discussed before, by Walker and Eakin, which is March, 1963. And, if I may, I'd like to read something in here: (Reading:)

> "The physical conditions in Amargosa today suggest that the estimate of discharge is a better [107] basis on which to estimate perennial yield in the light of better information. Thus, the tentative perennial yield may be about 24,000 acre-feet. Of this about 17,000 acre-feet can be obtained by full development of the springs in Ash Meadows."

Do you agree with that?

A Yes.

Q (By Mr. Lionel) And then do you agree with the following statement: (Continuing reading:)

> "The remaining amount would be available for development by wells largely in the area northwest and northeast of the springs."

A Are you asking me if I agree with that?

Q Yes. Do you agree with that statement in there?

A If a lowering of the water table could be tolerated, yes, that water can be developed.

Q And you say that would cause a lowering of the water table?

A Yes, it would.

Q To what degree? Any place besides in Devil's Hole?

A Yes.

Q Where?

A It would lower the water table in the well, if it were developed to the northwest of the spring line, it would lower the water table there. If it were developed in the [108] northeast, obviously the greater lowering

of the water table would be wherever it was developed to the northeast.

Q (By Mr. Lionel) To what extent would it be developed?

A It would depend on the amount of development of the water.

Q The amount of what?

A The amount of development of water. If we were to develop an additional 7,000 acre-feet, probably it would—well, this is roughly the amount of water that is being developed now. I would say that the overall effect in the basin would be similar to the 7,000 acre-feet which is now developed.

Q Now, what would happen to the water table there except in Devil's Hole, to what extent would it be lowered by the use of that 7,000 acre-feet used by the wells?

A Well, in Devil's Hole it would have been lowered a little over two and a half feet now until the level—

Q Until what?

A Until the level in Devil's Hole—it has already been lowered about two and a half feet and is still dropping—it has not reached a new equilibrium level yet.

Q Where else besides Devil's Hole would the use of that 24,000 acre-feet lower the water table in that basin?

A Wherever you place the center of the pumping. [109]

Q (By Mr. Lionel) I beg your pardon?

A Wherever you place the center of pumping it would lower the water table most at that vicinity, and then at a declining rate it would lower the water table spread away from that area.

Q Would it lower it significantly?

A Seven thousand acre-feet appears to have lowered the water level significantly now.

Q Now, Doctor, Devil's Hole, you indicated, is sort of like a standpipe, isn't it, caused by this fissure?

A Well, in width only it is more like a standpipe along the strike, the direction of propagation of this fall, it is a tabular opening.

Q And what happens down at the bottom?

A No one knows.

Q Well, there were divers down there, and don't you know that there's a great big cavern down there?

A Yes, there are several caverns down there; several rooms.

Q What do you mean by "several rooms"?

A These are places where the fault has been enlarged to a greater degree, period, than the normal passageways, and the enlarged passageways are generally cavern cavities called "rooms".

Q And it's actually like a grotto? [110]

A Yes.

Q (By Mr. Lionel) And actually this water travels in an underground pool for some distance; is that correct?

A Yes.

Q Do you know how far from where Devil's Hole is itself?

A We do not know the limits of Devil's Hole.

Q I see. And into these rooms the water flows and in some cases it fills the rooms and in some cases probably it does not fill the rooms?

A There are probably some rooms that have the roofs above the water table there; yes.

Q That's known as "Brown's Room," one particular room; is that correct?

A Yes.

Q Now, we have some wells which are west of this line here (indicating)?

A That's correct.

Q Now, did you say that pumping there does or does not affect water in Devil's Hole?

A I said I have no evidence at the present time that they do.

Q Is it possible if there was pumping over there, that that pumping over there could very well affect the level of water in Devil's Hole? [111]

A Yes, it could very well.

Q (By Mr. Lionel) As a matter of fact, sometimes it's very difficult to tell whether or not a particular well in that area will affect the level of water in Devil's Hole; isn't that true?

A When other wells are going on and off all the time, yes, it's very difficult to filter out the effect of one particular well.

Q Would a prolonged drought in the area affect the level of Devil's Hole, the level of water in Devil's Hole?

A A regional drought of many decades duration undoubtedly would; yes.

Q Would it have to be of many decades duration?

A The characteristic of ground water movement in a limestone aquifer of this sort is that the area is so extensive that on a year to year variation they're averaged out.

It takes water from such a great distance that the flow tends to remain stable through just the year-to-year climatic variations.

Q And that is the water we're talking about, water which flows these great distances?

A This is correct. And where we have a reliable record of the water level in Devil's Hole, it was, as you saw earlier, amazingly stable. [112]

Q (By Mr. Lionel) Now, this water which you're talking about which flows a great distance is percolating through this limestone formation; is that correct?

A It is moving through the fractures and the enlarged fractures.

Q In what we call an aquifer?

A That's correct.

Q And this aquifer all this great distance is actually a conduit over which this water percolates?

A Well, it's a series of interconnecting conduits, yes, if you wish to put it this way.

Q Actually, this is what we would call a regional flow system?

A That's correct.

Q And if there was any kind of a sizable farming operation any place in that regional flow system, that would have an effect upon the level of the water in Devil's Hole?

A It would have an effect that would be somewhat proportional to the distance of this, the rate of pumping, and if it got a considerable distance away, then the amount of recharge which the basin would pick up between that center of pumping and Devil's Hole would replenish it.

Q I assume you're familiar with the topography and the nature of the land in the general area; is that correct?

A That's correct. [113]

Q (By Mr. Lionel) Now, actually there's an awful lot of land here which is just south of U.S. 95 which would be extremely good for farming, wouldn't it?

* * *

A Well, I'm not an agriculturist. I cannot really evaluate that soil to know whether it's good for farming or not.

Q Well, let's forget the soil for a moment. It's flat land, this area I'm talking to, which is here kind of southwest of U.S. 95?

A Yes, it's reasonably flat land.

Q And with water, to your knowledge, that would be good farming?

A Provided other conditions were suitable; yes.

Q Fine. Now, if there were farming in that area—well strike that. To have farming there, we would have to pump water, otherwise we have no other source, we have no springs; is that correct?

A That's correct.

Q And we'd have to pump that water from the limestone aquifer in this regional flow system which is underneath this ground? [114]

A That is correct.

Q (By Mr. Lionel) And if we did that, and we pump water, would the pumping there in all likelihood have an effect on the level of water in Devil's Hole?

A That is correct also.

Q And when I say "would have an effect," it would reduce the level?

A It would reduce the level; right.

Q Now, actually this hydraulic system, I think was the way you phrased it, the hydraulic qualities of the

ground, really in this aquifer it actually varies, doesn't it, from place to place?

A Yes.

Q In other words, we might have a well one place and we might have another well right near it, and it could be entirely—it's effect, let's say, upon Devil's Hole, or some other place, could be entirely different?

A This is correct.

Q And, as a matter of fact, even if you took the same well at different levels, the transmissibility or the hydraulic effect or quality could very well be different?

A The effect of any one well on Devil's Hole may be the composite of the individual effects moving through separate aquifers into then the limestone system.

Q Well, I'm not talking specifically about how a [115] well may affect it, I'm talking about the fact that in a particular well itself at a definite depth, the hydraulic quality or its effect upon some place would be different perhaps?

A It might or it might not be.

Q (By Mr. Lionel) I see. Now, do you know whether or not over the past years—we're going back many years—the water level in Devil's Hole may have fluctuated widely?

A We have no evidence from the gauging that the Geological Survey has done that it has fluctuated widely within any historic time.

Q I beg your pardon?

A Within any historic time.

Q What do you mean "within historic times"?

A Well, since we have records existing in the historic files in the Survey.

Q Now, if I may refer you to Winograd, which you referred to this morning, and you were talking about his thesis?

A Not his thesis; his open file report on hydrogeological survey. It's entitled, "Hydrology of the Nevada Test Site and Adjacent Area."

Q Are you familiar with Mr. Winograd's "Origin of the Major Springs in the Amargosa Desert of Nevada and Death [116] Valley"?

A That's his thesis.

Q That's his thesis published. Have you seen it?

A I have not yet seen it.

Q You have seen it?

A I have not yet seen it.

Q You have not seen it. Well, would you agree with this statement that appears on page 158 of that thesis which is printed: (Reading:)

> "Although the water level in Devil's Hole has probably been constant for the last 15 and possibly 50 years, several bits of evidence indicate that due to a fluctuated widening in the geologic past that a large spring once emerged from the hole."

Would you agree or disagree?

A No, I'll agree with that.

Q You'll agree. All right. Now, were you at Devil's Hole some time during the month of September of 1971?

A Yes, I was.

Q And was that at a time that Wells 4, 5 and 6 were being pumped?

A Yes. That was just, I believe, about two days prior to their being turned off.

Q And that would be during the early part of September.

A That's correct. [117]

Q (By Mr. Lionel) And do you remember at that time talking to Mr. Barnett, who's the Manager of Spring Meadows?

A I do.

Q And was he at Devil's Hole at that time?

A Yes.

Q And do you remember if Mr. Delbert *Holzman*?

A Yes.

Q You remember him being there?

A Yes.

Q And did you have a conversation with those gentlemen at that time?

A Yes.

Q And they were being cooperative, weren't they?

A Yes.

Q And I think at that time you had taken off the reading in Devil's Hole?

A That's correct.

Q As a matter of fact, at that time you expressed some amazement at the fact that the level of the water as shown by the documentation there was a little higher than was anticipated, than you expected it to be?

A That part of it I don't recall.

Q Do you remember at that time having a conversation and advising or telling Mr. Barnett that you thought that wells could probably be drilled in a certain area over there [118] which would probably not have an effect upon Devil's Hole?

A I told him that I did not have the authority to say where wells could or could not be drilled. I said

that on the basis of the evidence that we had at that time that there was a possibility of developing more water in that area without affecting Devil's Hole.

Now, Mr. Germeraad questioned me about that this morning, and I explained at that time the reasons why we now realize that Wells 1, 2, 3 and 1B do have an effect on Devil's Hole.

Q (By Mr. Lionel) But did you indicate any specific area to Mr. Barnett and Mr. *Holzman* where you thought that wells could be drilled which would not affect the level of the water in Devil's Hole?

A I said at that time, though, wells in the new valley would not have.

Q Wells where?

A In what the ranch people know as the new valley. This is the valley which lies east of Point of Rocks.

Q And that would be where Wells 16 and 17 were dug?

A That is correct.

Q So then in September of 1971, it was your opinion that if wells were dug, or where Wells 16 and 17 have now been dug, that they would not affect the level of the water in Devil's Hole? [119]

A No. My opinion at the time was that we could not identify the effect from Wells 1, 2 and 3.

Q (By Mr. Lionel) But didn't you tell me that if wells were dug in that area, it probably would not affect the water level in Devil's Hole?

A If anyone wanted to know that, they would have to drill one to find out.

Q You didn't tell me that you felt that it probably would not affect the level?

A I felt at that time that it probably would not; otherwise I would have chosen Wells 1, 2 and 3 to have been turned off last September.

Q Then as I understand it correctly at that time, in September, you told Mr. Barnett and Mr. *Holzman* that you didn't think pumping in that area where 16 and 17 had since been drilled or dug, that it would probably not affect the level?

You did tell them that?

A Yes.

Q And it turned out after they drilled it that in fact it did?

A Correct.

Q Now, have you ever checked Well 16?

A Let's see, this is Well—

Q I A? [120]

A —1A? I have looked at it once in the field.

Q (By Mr. Lionel) Did you run any tests on it?

A No.

Q Then you don't know what Well 16 does affect the level in Devil's Hole?

A That's correct.

Q And you're quite certain that 17 in fact does?

A Yes.

* * *

Q Did you yourself do any checking to make a determination as to whether the State of Nevada had granted permits for the digging of these wells and the beneficial use of the water from that source?

A Are you speaking of Wells 16 and 17?

Q I'm talking about all of the wells.

A Yes. I went to the office of the Nevada State Engineer, acquired a copy of his abstract of water

rights in the area, and my primary use of these was to identify the various wells to help locate them.

Q And so then you found out that there were valid [121] permits which had been issued by the State Engineer?

MR. GERMERAAD: I object, your Honor. He's now asking the witness for a legal conclusion about the validity of that.

THE COURT: Sustained. The word "valid." is a conclusion.

MR. LIONEL: I beg pardon?

THE COURT: The word "valid." is a conclusion.

Q (By Mr. Lionel) But it had been issued?

A Yes.

Q And the amount of pumping that was done by the defendants at each of these wells was authorized by those permits?

A The amount of pumping that was done during 1971 was within authorized limits.

Q Do you have any knowledge with respect to '72?

A No, I don't.

Q Then as far as you know, that any pumping done from those wells was within limits authorized by the State Engineer of Nevada?

A As far as I know.

MR. LIONEL: I have nothing further, your Honor.

THE COURT: Mr. Paul, any questions?

MR. PAUL: No, your Honor.

MR. GERMERAAD: I would just have a very few [122] questions, your Honor.

THE COURT: Redirect.

REDIRECT EXAMINATION

BY MR. GERMERAAD:

Q Dr. Dudley, I think there's been some slight confusion over the amount of recharge in what we call perhaps the Ash Meadows region, or the area of the discharge, the area of the Spring Meadows Ranch, and the recharge of the entire basin area of the water system.

Could you please distinguish between these two for us, please?

A Yes. The Ash Meadows ground water system is the extensive area in Southern Nevada covering about 4,500 square miles. The recharge to this ground water system is approximately equivalent to the discharge from the ground water system.

The system is in more or less equilibrium being approximately 17,000 acre-feet each year.

Q In other words, if a party were to use, to simply pump the water from the springs as it ran over the top of the spring, they could perhaps have as much as 17,000 acre-feet to use?

A This is correct.

Q Not pumping or drawing it out, but as it came over the top, simply siphoning it off? [123]

A This is correct.

Q (By Mr. Germeraad) Okay. The pumping that has been done on Wells approximately 1 through 8 and recently 17 and 18—or, excuse me, I'm sorry, 16 and 17, then it was your opinion, have these lowered the water table in the area of the Spring Meadows Ranch?

A Yes.

Q You were asked at an early point in cross-examination concerning your underwater investigation of Devil's Hole.

How far down did you personally go as a diver?

A I personally dove to a depth of 30 feet and could see clearly to a depth of approximately 40 feet.

Q And the results of that were what?

A The results were, I saw no features which I felt indicated a lower water level than in the past.

Q The three gentlemen that were there, the other gentlemen divers, were they looking at your direction?

A Yes.

Q At a lower level?

A I instructed them above water as to what to look for, and they did go down and report that they had seen no depositional rings, no erosional ledges, and this sort of thing.

Q Mr. Lionel posed several questions about, theoretical [124] questions about ledges. If there was a smooth ledge present below the water level, would that necessarily mean that the water level had been at a lower level?

A Not necessarily.

Q (By Mr. Germeraad) Could you explain just very briefly why not?

A Well, the ledge might be due to such a thing as a joined surface.

Q Speak up a little louder, please.

A The ledge could be due to a joined surface which was exposed. It could, although it's not very likely, just be the way the rock happened to break. This most likely could be controlled by joints. This would be the most likely explanation, other than either depositional or erosional terrace.

Q Thank you. Just a few minutes ago Mr. Lionel asked you about possible wells out in this outer lying region, and what effect these may have on Devil's Hole. And I believe you said, "Well, it would depend perhaps on the amount and we basically perhaps see what happens."

Now, the wells that were in fact drilled and used, 1 through 8, 16 and 17, do they affect Devil's Hole?

A Yes.

Q We were talking about more or less bathtub rings that showed higher levels of water in earlier years, and Mr. [125] Lionel referred to a few works by other gentlemen that talked about "perhaps the spring over the top," and you said "Yes, that this might have taken place in geologic time."

In terms of years, is geologic time three years, four years? What are you talking about? What do you mean by "geologic time"?

A Well, in the history of this particular area, by "geologic time" we mean thousands of years.

Q (By Mr. Germeraad) So, in other words, perhaps these rings and the surface over these 15, 20 feet or more, this is the change that has taken place over a period of thousands of years?

A Several thousands of years.

Q Right; as opposed to the drop of two and a half to three feet, or whatever has been simply in the two to three year period?

A In the amount of three-year period.

Q How fast is the water level going down in Devil's Hole?

A On an average, it is now going down approximately a foot per year.

Q As a hypothetical continuing the normal growing season and the use of water at Spring Meadows as done in the past, what is your opinion as to when this shelf would be dry or completely exposed? [126]

A I would say it would be exposed probably by the middle of this August.

Q (By Mr. Germeraad) One more question. If all these wells stopped except for domestic purposes, which we have not asked to be discontinued in this area, how long will it take for the water level to just go up to, let's say, 85 percent coverage of the shelf, not another eight-tenths of a foot higher to what it was prior to 1967, but just maybe 85 percent, not 100, but maybe 85 percent coverage?

A I would say between a year and a year and a half.

MR. GERMERAAD: No more questions, your Honor.

THE COURT: Mr. Germeraad, what do you mean by "domestic purposes," when you asked the question here?

MR. GERMERAAD: I believe that domestic purposes means that there are naturally employees out there, if a person lives out there, he's naturally going to have to have water.

THE COURT: How about watering his stock?

MR. GERMERAAD: I believe under the State law, and this is what I'm relying on as a definition, under the State law, stock watering is a separate category of beneficial use; irrigation is another. Domestic purposes would simply be that required to keep a household going.

THE COURT: All right. Thank you. [127]

BY THE COURT:

Q I believe you told us earlier, Doctor, that the source of all waters in this basin or system are from the mountains; is that correct?

A A vast majority of the water comes from the mountains.

Q What mountains?

A The Spring Mountains, as far away as the Sand Springs Range, Pahute Mesa, the Nevada Test Site and perhaps as far as the Sheep Range in the East.

Q The Sheep Range and the Spring Mountain Range. How long would it take water, being drawn into the soil from Spring Mountain Range, to reach the Ash Meadows area and Devil's Hole?

A We do not know the exact rates of ground water movement. We are conducting experiments in this area to try to determine what the natural rate of flow is.

Q A matter of years, though, isn't it?

A Yes; many years. The movement is probably a few tenths of a foot per year.

MR. GERMERAAD: One thing further, your Honor. I overlooked asking for the admission of Plaintiff's Exhibit 11. I would move its admission now.

MR. LIONEL: We have no objection.

THE COURT: It will be received. [128]

(Plaintiff's Exhibit 11, having been previously marked for identification, is received in evidence.)

* * *

ROBERT RUSH MILLER,

(called as a witness by and on behalf of Plaintiff, being first duly sworn, was examined as follows:)

* * *

DIRECT EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff:

Q Would you also give the Court your address, please, Dr. Miller?

A I live at 1117 Brooks Street, Ann Arbor, Michigan.

Q What is your present position, Dr. Miller?

A At present I am Professor of Zoology and Curator of Fishes at the University of Michigan. [129]

Q (By Mr. Germeraad) Could you briefly outline your educational background for the Court, please?

A I obtained my Bachelor of Arts from the University of California at Berkeley in 1938. I went for my graduate work to the University of Michigan where I obtained a Master of Arts Degree in Zoology, in 1943, and a Doctor of Philosophy Degree at Michigan in 1944.

Q And what field was it you were—

A I was in Zoology also.

Q When did you first start or begin the study of pupfish?

A While I was still an undergraduate student of the University of California, I first visited Ash Meadows in December, 1936.

Q Generally, how many papers have you published concerning, in whole or in part, the pupfish, and when was the first one published?

A The first paper on the pupfish was published in 1942. In 1943 I published two papers on the pupfish, one describing a new species from Death Valley, and the other differentiating the species of the Colorado River Basin from that in Death Valley, and in 1948 my doctoral thesis of 155 pages on the fishes of the Death Valley system was published.

Between 1936 and 1972 I have published a total [130] of 17 papers that deal in part or whole with the pupfish genus.

Q (By Mr. Germeraad) Could you also tell us, if there is a pupfish genus, are there other varieties in this genus other than the Devil's Hole variety?

A Yes. We don't know exactly how many species of pupfishes there are, but there are probably as many as two dozen ranging from northeastern North America to North and South America, through Mexico, and in California and Nevada.

Q When did you first begin the study of the desert hole pupfish specifically?

A My first visit to the desert hole, to the Devil's Hole, was in December, 1936. That was the first time that I saw them. From 1937 to 1942, in connection with my doctoral research on the fishes of the Death Valley region, I made many visits to Ash Meadows, and I do not recall exactly how many times I went down into Devil's Hole, but during the total time that I have been involved in the study of Death Valley pupfishes, I have made at least twenty visits into Devil's Hole.

Q Would it be correct to say then, off and on since 1936, you have been studying these pupfishes and even including specifically the Devil's Hole pupfish?

A That is a correct statement to say that during the last 36 years I have from time to time studied pupfishes of [131] the Death Valley region.

Q (By Mr. Germeraad) Would you please tell us a little bit about the nature of what the pupfish is like? Describe it and its habits.

BY THE COURT:

Q What is a pupfish? Not the technical definition: the word "pupfish". Where did the word "pupfish" come from?

A Where did the word "pupfish" come from? The word "pupfish" was coined by Professor Carl Hubbs in reference to their behavorial pattern. This was about in 1948. And it was taken up by the public and accepted by them.

Q (By Mr. Germeraad) Please tell us now a little bit about what the pupfish is like?

A The Devil's Hole pupfish is unique among the some two dozen species of pupfishes in a number of traits. One most obvious thing is the tiny size. It is mature at less than one inch; therefore, it is a dwarf in species, much smaller than any other known species in the genus. It also lacks pelvic fins, the fins on the abdomen, which is not found consistently in any other species.

The males are non-territorial, by which I mean that they do not set aside and guard definitive territories, as is known for all other species of pupfishes. The life colors of the male are distinctive. It has a reddish, orangeish dosal fin and a white border to the anal fin; and the females [132] lack vertical bars, which is unusual for pupfish. All other species known within the genus have these vertical bars in the female.

Q (By Mr. Germeraad) Could you tell us something about the life cycle of the pupfish from birth to death?

A We know for the Devil's Hole pupfish that its life cycle depends upon the fact that it must spawn in shallow areas around rock rubble, that it depends for its survival upon the production of algae and the associated microorganisms with the algae.

And we also know from recent work that it has an interesting migratory pattern, in that during the peak intensity light periods of the day it moves downward to at least 25 to 40 feet, and then migrates up as the light wanes in the late afternoon, so that the activity cycle is most active in the late afternoon and early morning.

Q Do all pupfish migrate or only certain age pupfish?

A Devil's Hole pupfish is the only one known to do this.

Q Now, do the very young migrate down as low as 40 feet?

A I have seen fish lower than, actually deeper than that level, but the great bulk of the population probably does not live, does not migrate to greater depths than 25 to [133] 40 feet. There have been a few stragglers found down at deeper depths.

Q (By Mr. Germeraad) You mentioned the sunlight as concerning the migration habits. Is the sunlight vital in any other ways?

A The sunlight, and we do not know the precise role because we have not measured the intensity or the quality of the light, but obviously from the development of algae during the year, the sunlight is required for a normal cycle of algal development upon which the population of the pupfish depends. What the pupfish eats, including algae, is associated with the production of algae.

Q Does the sunlight, as it reaches the water surface in Devil's Hole, vary from one time of the year to another?

A Yes, it does. In the late spring and early summer and probably during most of the summer—we do not have the exact figure—but sunlight does fall on

the surface of the breeding place, the breeding ledge, and over perhaps half of the rest of the pool anywhere from two to three and a half hours a day.

And in the wintertime there is no sunlight falling on the surface in Devil's Hole, and algal production drops to an insignificant amount, especially after November and December. In December and January there's practically no algal production whatsoever. [134].

Q (By Mr. Germeraad) Would the population in numbers of Devil's Hole pupfish vary through the years as well?

A Yes. In the mid-winter the population is at its lowest ebb in correlation with the virtual absence of algae. And beginning in the spring, the population starts to build up and is high in the spring. And there's another peak in late summer, and it drops off again to the winter low.

Q During the past 30 years or so, have you conducted counts of the fish?

A We have attempted to estimate the population size over a long span of time. The first time that I attempted to estimate the population was in December of 1936. And some of these early estimates were made without any knowledge that we were not seeing the entire population of fish; for many years it was thought that one could simply stand at Devil's Hole, look down the artificial shelf and for a few feet below that level count all the fish, but when we discovered they migrated to greater depths, we realized that some of these early counts were low.

Q Doctor, you said "looked down the artificial shelf." Is that what you meant to say?

A I'm sorry; the natural shelf. There is no artificial shelf in the early days. [135]

We used various methods of counting. In the early days, we simply stand near or on the natural shelf and count the numbers of fish we could see swimming over the natural shelf. We would make several estimates and average the estimates to get some appreciation of the number of fish.

In later years, much later, we employed underwater diving gear, and we also used a face mask and snorkel so that we were able to get down below the surface and see particularly the newborn young fish, which are extremely difficult to observe above the water surface. And when we used divers, we were able to gain some appreciation of the population movement.

Q (By Mr. Germeraad) Can you tell us something generally: What do you believe the stable—prior to the drop in the water level in Devil's Hole, starting maybe in 1969, prior to that time, what is your opinion as to the population at the different times of the year?

A The first attempt to get an objective count of the fish in Devil's Hole was made by me on April 1, 1950, when I actually used a seine, small fine-mesh seine, and tried to seine all of the fish off of the natural shelf, put them in a one-gallon tank, count them, and return them to the water.

At that time I caught 127 fish, but the adjusted estimate of the population at that time, knowing what we do [136] now about the movement of fish to greater depths, would be approximately two hundred or slightly in excess of two hundred fish.

Q (By Mr. Germeraad) Based on counts further in 1969, what would be the maximum population at the high peaks in the summer?

A From June 30 to July 1, 1967, a number of us spent a long period of time attempting to remove all of the fish from the artificial shelf or from the natural shelf of Devil's Hole. And over that period in which we operated night and day continuously we removed by actual count 464 fish. This was the last day of June and the first day of July.

Q And this was collected just from the upper regions?

A This is from the natural shelf. It did not include any fish at greater depths. So our estimate then was that the population at that time was probably close to 700 individuals. This is the highest estimate that has been made for Devil's Hole.

So that the mid-winter population number probably runs around two hundred normally, and the maximum production in the summertime would be around seven hundred.

Q Now, since the pumping began, have you made various counts since 1969?

A In 1970, on November 18, following one of the [137] meetings of the symposium on pupfishes in Death Valley National Monument, I went over to Devil's Hole, and using a face mask, estimated that there were close to 800 fish in Devil's Hole. Now, this is an unusually high number, and the explanation for it is that the artificial shelf, an artificial shelf had been installed in Devil's Hole on May 12, 1970, and thinking that algae production would be enhanced by adding artificial lights over this shelf, on September 17 a series of artificial lights were added to enhance the growth of algae.

What I believe happened is that the algal production was extended beyond its normal duration, and the

fish that I saw were mostly old adults, which would normally have died but were able to survive until as late as November 18 by having this extra supply of food, because I understand that within a month after I got this estimate of 800 fish, there was a dramatic decrease in the number of fish in Devil's Hole.

* * *

Q (By Mr. Germeraad) Who was it that told you this?

A The National Park Service: Pete Sanchez' report.

Q Okay. We'll just go on. Have you made other [138] counts since November '70?

A On June 29, 1971, I visited Devil's Hole and counted about 90 fish on the natural shelf. At that time the shelf was about 70 percent exposed. My adjusted estimate for the total number of population at that time was between two hundred and three hundred fish.

Q (By Mr. Germeraad) Is this June date generally rather late in the season—well, when is the normal peak?

A Well, this figure could be compared very well with the figure that we got in late June in 1967 when we came up with an estimate of nearly 700 fish in Devil's Hole. This is the same time of year, almost to the day, five years. or four years later, in which we got something like one-half of the number that were in Devil's Hole prior to the lowering of the water level.

Q Have you since conducted other fish counts?

A Yes. On April 6 of this year I visited Devil's Hole, and we were accompanied by three divers from the National Park Service and from the Bureau of Sport Fisheries and Wildlife. This was the first attempt

to correlate the total census with an underwater exploration to try to determine how many fish were below the surface at the same time that counts were being made at and near the surface.

We divided up into two groups, counting fish at the surface, taking turns counting fish on the natural shelf [139] and counting fish on the artificial shelf and averaging the values. And then the second method employed was to use a snorkel and face mask and get underwater, which I did, and count fish on the natural shelf and on the artificial shelf.

At the time we were doing this work, the divers were down getting their estimates, starting at approximately 90 feet and working back up toward the surface, and the total figure for April 6, 1972, averaging all these values, was 200 fish.

Q (By Mr. Germeraad) Go ahead.

A On April 27 we ran the second census of this spring. At that time we were unable to get the divers to go with us, and so the counts were not very comparable. And I estimated that the population was at least as great as it was on April 6, namely, 200 individuals.

On June 2 and 3 of this year we made what I considered to be the most accurate census that has been made so far. We had the same three divers, and I was also accompanied by Dr. James E. Deacon, Professor of Biology at the University of Nevada here in Las Vegas, who has been studying the Devil's Hole pupfish intensively for the last five years or more, and we came up with our estimate at that time, based on counts from the surface, counts using a snorkel and face mask, and the counts of the three divers, a total [140] population of 400 fish.

Q (By Mr. Germeraad) Dr. Miller, do you serve in an advisory capacity to the National Park Service concerning the pupfish?

A I do. I have been a collaborator of the National Park Service since about 1961. And I served in the capacity as a scientific advisor on problems having to do with any fish populations in National Monuments or National Parks within the United States.

Q These divers then helped you on these various times, and Mr. Sanchez, who made the count after the November, 1970 service, were these people generally working then at your direction?

A Yes, they were.

* * *

Q (By Mr. Germeraad) What is your expert opinion as to the trend of the pupfish population over the last several years?

A It's my professional opinion that the population size has been dropping because the size of the population [141] depends upon the amount of area that the natural shelf is covered with water. There's a definite correlation between the amount of water on the natural shelf and the total production of fish in Devil's Hole.

Q (By Mr. Germeraad) Have there been any attempts at transplanting the Devil's Hole pupfish to other natural or aquarium locations?

A There have been attempts to transplant the Devil's Hole pupfish to other springs. Four of these were made between 1949 and 1972. There have also been attempts to culture the fish in captivity. Six attempts were made between 1947 and 1972. To date, all the attempts to transplant the fish and get it to reproduce in another habitat have failed, and all the attempts at culture up to the present time have also failed.

Q Have you attempted to stimulate the population in Devil's Hole itself in any way?

A On May 12, 1970, we introduced an artificial shelf 16 feet long and 4 feet wide, made out of fiberglass, which is adjusted so that it remains at a nearly constant level in the water of two feet, so that it will rise and fall as the water level rises and falls.

Later in the same year some artificial lights were installed with the idea that if we could stimulate algal growths this also might help Devil's Hole pupfish to [142] survive.

Q (By Mr. Germeraad) Could you explain the success or lack of success in this effort?

A I didn't hear your question.

Q Could you explain the success or lack of success of this effort with the artificial shelf?

A The artificial shelf was in Devil's Hole for approximately one year, and during that entire time although careful examination was made of it with a face mask and snorkel, no young were observed, no newborn young were observed, on the artificial shelf, and we had no evidence that any spawning was taking place on the artificial shelf.

We did see occasionally fish feeding on the artificial shelf because there was some algal roe on it, but no evidence of any young being born on the artificial shelf. However, on the last census, on June 2 and 3, we did find a few young on the artificial shelf, approximately one per six square feet of artificial shelf.

At the same time, on the natural shelf we got an estimate of a minimum of ten fish per square foot, ten newborn young per square feet.

Q So that then is a factor of sixty times as many young located on the natural shelf as opposed to the artificial shelf?

A That is correct. It would work out to about sixty [143] times production on the natural shelf versus the artificial shelf.

Q (By Mr. Germeraad) Do the pupfish hatch live or do they come from eggs?

A All of the species of pupfish are egg layers. The eggs are laid singly or in small groups, and they adhere to the bottom when they are laid.

Q What size are these? Can these eggs be seen?

A They are about a millimeter in diameter and they can be seen.

Q Have you found any eggs on the artificial shelf?

A I have not observed any eggs actually on the artificial shelf; no.

Q So what is your opinion as to the success with your latest observation on the artificial shelf?

A It would appear that the artificial shelf maybe is being used in a very limited extent for spawning and reproduction.

Q But do you have any definite evidence as yet that fish are actually spawning; in other words, that eggs are there?

A We have not seen the actual spawning act and fish laying eggs on the artificial shelf.

Q But perhaps they are using it to raise the young; is that correct?

A They seem to be using it to raise the young; yes. [144]

Q (By Mr. Germeraad) Would the artificial shelf be sufficient to maintain the population if the natural shelf were not covered by water?

A It is my professional opinion that if the Devil's Hole pupfish is denied all access to the natural shelf, it will not be able to survive beyond or through the

year 1973. A minimum threshold of the population is required.

Now, we do not know exactly what the minimum threshold is, but we can assume from our counts of the mid-winter population that this must be somewhere between one hundred and two hundred individuals.

Q In other words, maybe you need a little further explanation for the Court—what is a "threshold" when you're talking about a "minimum threshold of the population"?

A This is a minimum effective breeding science below which the population cannot fall and hope to recover.

Q With the rate of sixty times in use of the natural shelf over the artificial shelf, then am I correct that you don't think that this is enough then to sustain the population of the threshold number to ensure its existence?

A I think that is a correct statement. We cannot count on the artificial shelf to sustain the population in sufficient size to provide for survival.

Q Dr. Miller, have you yet become familiar with the pleadings in this case? [145]

A I have read certain pages of it; yes.

Q (By Mr. Germeraad) Earlier have you read certain pages of the points and authorities submitted by the defendants?

A Yes.

MR. GERMERAAD: I believe, your Honor, starting at approximately page 4 of the defendants' points and authorities, there are certain articles by designated authors concerning supposed actions of Dr. Miller.

Q On page 4, Dr. Miller, directing your attention to the top half of the page, an article by Sterling Bunnell

is mentioned. Please review that supposed quote from Mr. Bunnell's article, and please tell us whether it is correct.

Mr. Bunnell's article states that: (Reading:)

> "Carl Hubbs and R. R. Miller were successful in convincing the service that the hole was worthy of inclusion in the monument. In doing so, they cited an unusual travertine limestone formation in the hole as a pretext, since park service policy at that time did not consider saving a rare animal species sufficient reason for acquiring land."

Could you please tell me, Dr. Miller, whether you did do these things? In other words, did you make representations to the Park Service in kind of a subterfuge?

A I did not. [146]

Q (By Mr. Germeraad) Dr. Miller—

BY THE COURT:

Q What representations if any did you make to the Park Service, Doctor?

A I have looked through my files on the Devil's Hole pupfish, and I cannot find any letter that I wrote urging them that they set aside the Devil's Hole because of the Devil's Hole pupfish. But I must have written some such letter, but I did not make any claim to citing travertine formation as the reason for doing so.

I simply stated that the Devil's Hole pupfish were worth saving, and should be set aside for that reason alone.

Q (By Mr. Germeraad) There's another article, I believe, on the next page by Mr. Alvin McLane, and there is underscored a sentence: (Reading:)

> *"Hubbs and Miller cited a travertine formation in Devils Hole as a disguise for its inclusion in the national monument system."*

Then is your reply the same to that statement?

A My reply is the same to this allegation as to the previous one, and-that is correct.

Q That you did not urge that the pupfish be saved because of the travertine formation?

A That is correct. [147]

Q (By Mr. Germeraad) In conclusion, Dr. Miller, could you tell us, are the Devil's Hole pupfish in your opinion then dependent upon a shallow area such as this natural shelf that provides for their continued existence?

A So far as all of our knowledge that we have gained from studying this fish intensively in the last five years particularly, we have no evidence to believe that the Devil's Hole pupfish can survive without access to shallow rocky ledges such as are provided by the natural rocky shelf in Devil's Hole.

Q Now, I don't want to embarrass you, Doctor, but are you considered one of the foremost authorities on the pupfish, and the Devil's Hole pupfish specifically?

A That is correct; I am so considered.

MR. GERMERAAD: That's all my questions, your Honor.

THE COURT: Thank you.

BY THE COURT:

Q Doctor, what is the life span of the pupfish?

A There are probably some individuals that are born early in the spring that do not live more than a year. And there are other individuals born late in the summer which probably have a life span of more than a year.

This is about all I can say about them. It is a short life species, but we cannot claim that it is an [148] exclusively annual species, one confined to a year cycle.

BY THE COURT:

Q Thank you. Do you have an opinion why efforts to transplant fish and produce them culturally have failed?

A I think the reason revolves around a delicate interplay between the fish, the water chemistry of Devil's Hole, the temperature, nearly constant temperature of 91 to 93 degrees Fahrenheit, and the unique photo-period—it's probably a combination of these factors, and the production of algae, which are responsible for the unique conditions in Devil's Hole to which pupfish is adapted.

The reason, I think, that light is so important is because we have had no trouble raising many other pupfish species, and raised many myself, and now the door is closed. I think perhaps of the total number of twenty or so species about two-thirds of these have been easily reared in backyard pools, out in the open sunlight, yet no one has had success in rearing the Devil's Hole pupfish or having success in transplanting it. And I think the photo-period is a very important aspect of its biology about which we do not know sufficient.

MR. GERMERAAD: If the Court please, perhaps one more question:

Q What size then were these transplants attempts and why was the particular size of the transplant attempt used? [149]

A The numbers of the fish?

Q (By Mr. Germeraad) Right. How many were transplanted at a time, and why were those numbers used?

A Because of the precarious condition of the population, it has generally been felt that it is advisable not

to remove more than 10 percent of the population at any given time, so that the figures have been mostly around twenty-five individuals.

MR. GERMERAAD: Thank you.

THE COURT: Cross-examination.

CROSS-EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Dr. Miller, the article which Sterling Bunnell wrote, which appears in the memorandum of points and authorities—

A Yes.

Q —when did you see the points and authorities that counsel was referring to?

A Yesterday afternoon.

Q Now, prior to that time had you ever seen any reference to the Sterling Bunnell article, or had you yourself seen the Sterling Bunnell article?

A The first time that I saw the Sterling Bunnell article is when it appeared in print in California.

Q And when did you see that? [150]

A I don't remember the exact date of publication, but it was within a month after the date of publication of the journal.

Q But it would be some time in 1970?

A I think in 1970; yes.

Q Do you know Sterling Bunnell?

A I met him briefly at the first symposium on fishes at Death Valley National Monument in 1969.

Q And that was the symposium on Death Valley fishes which occurred at Furnace Creek Ranch in 1969, and more precisely on November 18 and 19?

A That is correct; yes.

Q Now, when you first saw that article, did you do anything about it?

A Did I do anything about it?

Q Yes.

A No, I didn't.

Q Did you attempt to communicate with Mr. Bunnell and find out where he got that from?

A No, I didn't.

Q Did you ever see the other article which is referred to in there, referred to in the memorandum of points and authorities, done by Alvin R. McLane?

A That one I have not seen until I saw it yesterday afternoon. [151]

Q (By Mr. Lionel) Do you know who Mr. McLane is?

A No.

Q All right. Now, you were present then at this symposium in November of 1969 at Furnace Creek; is that correct?

A That is correct.

Q And you'll notice in our points and authorities we pointed out that there was a panel or seminar—probably more precisely a panel—on November 18, in which you were the chairman; is that correct?

A That is correct.

Q And Mr. Hubbs was a member of that panel?

A That is correct.

Q Are you related to Mr. Hubbs?

A Yes, I am.

Q You're his son-in-law; is that correct?

A That's correct.

Q And did you read the report of that symposium which was prepared by—is that Mr. Pister?—

A Pister.

Q Pister—and was he present at the time of that panel discussion or that seminar?

A He was taking—the symposium was being recorded on tape, and these are notes that he had interpreted when he made his report from the tapes of the actual symposium; so he [152] was present; yes.

Q (By Mr. Lionel) Was he in effect the official reporter?

A Well, I don't think you could call him the official reporter. He was in charge of the symposium, and was responsible for presenting it.

Q He was in charge of the symposium?

A Yes.

Q And it was his job to prepare a report following that symposium?

A I believe that's correct.

Q And that report was supposed to be published?

A Supposed to be published but it never was.

Q Did you ever see a copy of it?

A Not until almost the next, the following year, one year later; the following symposium.

Q And did you see the report of the panel which you chaired on November 18, 1969, in that report the following year?

A Yes, I did.

Q And did you notice in there the report of that panel, which stated: (Reading:)

> "The first step toward habitat protection in this area was the establishment in 1952 of Devil's Hole as part of Death Valley National Monument. [153] Interestingly, this was done ostensibly because of the unique travertine limestone formations but not to preserve the *Cyprinodon diabolis*, the unique fish inhabitant"?

A I read that.

Q (By Mr. Lionel) At the time you read that—well, was there any discussion held by that panel which you chaired on November 18, 1969, concerning the National Monument Proclamation made in 1952 by President Truman?

A Professor Hubbs was a member of that panel, and he discussed that proclamation because he was the one that was chiefly instrumental in getting the Devil's Hole set aside as part of the National Monument.

Q Was he more instrument than you were in that regard?

A He was by far.

Q By far. I see. And do you remember anything said by Professor Hubbs at that panel discussion concerning this particular matter which appears in the report and which I have just quoted?

A Yes. He pointed out that the National Park Service did not have a policy for setting aside a national monument to preserve endangered species, and therefore he had come up with this idea of pointing out the travertine deposit as a means of getting Devil's Hole set aside as part [154] of Death Valley National Monument.

Q (By Mr. Lionel) And did he tell about his attempts to get it set aside for many years, perhaps as many as ten?

A Well, I don't think he worked on it quite that long, but it took him quite a little while to get some action.

Q And the only way he'd get it set aside was to cite the unique travertine limestone deposit?

MR. GERMERAAD: Are you asking the witness what the Department of Interior did? I don't understand your question.

Q (By Mr. Lionel) Well, you've been in constant communication with Professor Hubbs over the years?

A I see him frequently.

Q I see. Well, what did Professor Hubbs tell the panel? I assume this is all on tape, you tell me?

A Yes.

Q Do you know who has that tape?

A Well, Mr. Pister had it at one time. I don't know whether it's still in his possession or not.

Q Well, what do you recall Professor Hubbs telling the people present at that panel?

A I just stated it.

MR. GERMERAAD: Are you asking him now for hearsay? Is this it? [155]

MR. LIONEL: I'm asking the witness; yes.

THE COURT: Counsel, you're making observations to Mr. Lionel. I prefer you to make an objection if you have any.

MR. GERMERAAD: Then I object that he is asking the witness for hearsay.

THE COURT: Sustained.

Q (By Mr. Lionel) Did you ever talk to Mr. Pister about what appears here in this summary?

A Not specifically.

Q Did you talk to him about anything appearing not specifically?

A I wrote a summary immediately following that first symposium myself, and sent that to him, and that was published, multilithographed along with his summary a year later.

Q Is there anything in that summary that did not occur on that day?

A Well, I'd have to read the summary over very carefully to determine that.

Q I'm talking about particularly page 3.

A I don't have page 3 of that summary here.

MR. LIONEL: Would you mark that, please?

THE CLERK: Defendants' Exhibit B marked for identification. [156]

(Defendants' Exhibit B, being a summary, is marked for identification at this time.)

Q (By Mr. Lionel) And you have seen the summary before?

A Yes, I have.

Q About 1969; is that correct? About 1970?

MR. GERMERAAD: I haven't seen it.

Q (By Mr. Lionel) May I refer you specifically to page 3?

A (Witness examining document.)

I don't see anything on that page that is not correct.

MR. LIONEL: Did you get that, Mr. Reporter?

THE COURT REPORTER: Yes. sir.

Q (By Mr. Lionel) Dr. Miller, this natural shelf that you are talking about that the fish use, what does it consist of? Is there anything unusual about it?

A Oh, it has at one end loose rock rubble, and at the other end there's not much of this material. This is probably rock rubble that was washed into Devil's Hole from time to time in the rare occurrence of rains, and it is amongst these little rocks, rock rubble material, that the young fish are able to hide in and amongst the rocks, and the algae growth is particularly strong at that shallower end of that pool. [157]

Q (By Mr. Lionel) Is there anything unique about that rock rubble?

A Not that I know of. I'm not a geologist, so I can't tell you whether there's anything peculiar about it.

Q You know, don't you, that the water level in Devil's Hole has not always been substantially where it is now?

A Right. That's correct; not where it is now.

Q Well, it has been substantially higher on occasion; you know that?

A I saw Devil's Hole in 1936, and between 1936 and 1967, I didn't notice any significant change in the water level on the shelf.

Q Did you hear Dr. Dudley testify earlier this morning?

A Yes, I did.

Q And did you hear him say that at one time in all likelihood this was a spring, and that it reached the surface of the ground; in other words, water came out?

A Yes, I heard that.

Q And did you hear him also testify that there was considerable evidence that the water level in Devil's Hole had been higher on various occasions?

A I think he said it had been 10 to 15 feet higher; is that correct? [158]

Q (by Mr. Lionel) Well, he also said that but I was—

A At one time he said that it had overflowed.

Q At one time it had overflowed, so I would assume that—

A He didn't specify what time, though.

Q All right. Now, is it your opinion that these particular pupfish in Devil's Hole have only been there while they've had this particular shelf or ledge with that rock rubble?

A No, I don't think that's true. I think they could easily have lived on a succession of shelves that were higher than the present one.

* * *

Q Doctor, do you know any reason why the fish could not thrive if they used a ledge with rock at a lower level than the ledge they now use?

A Yes. I think it would depend on how much lower [159] that level would be than the one that they're now using in reference to the intensity and quality of light that might reach such a shelf.

Q (By Mr. Lionel) And the main reason for that would be because of the growth of the algae which is needed to grow the microorganisms that they feed upon?

A That would be the chief reason; yes.

Q Now, isn't it true that the artificial light or the artificial light that was brought in that was used over the artificial shelf was successful in growing algae on the artificial shelf? In fact, the fish ate the microorganisms which grew in that algae?

A It was successful to a certain point, and beyond that point it was too intense and killed off all of the algae in the artificial shelf so when I went there on April 6, 1972, the artificial shelf was completely covered with a mass of dead algae.

THE COURT: You say "too intense." The light was too intense?

THE WITNESS: The light was too intense.

Q (By Mr. Lionel) And I would assume the light could be properly adjusted?

A That is correct.

Q Now, you say that the fish in fact do eat on the artificial shelf? [160]

A They have been observed to eat, some fish have been observed to eat on the artificial shelf.

Q (By Mr. Lionel) And is it a reasonable hypothesis that perhaps if the natural shelf wasn't there that the fish would use the artificial shelf more than they use it now?

A This could be. But we're talking here about what is going to happen eventually; if the pumping continues and the water level continues to drop, there will come a time beyond which no man-made structure will be of any use to the Devil's Hole pupfish.

Q Why is that?

A Because eventually if the water level drops, say, 15 or 20 feet, then the artificial shelf will completely cover the water level underneath it. There won't be any light getting in whatsoever. There won't be any, because the opening, as I understand, the opening down narrows in the Devil's Hole. Once you get down to a certain level there's a neck which the water goes down through and expands out into lateral chambers.

I've seen sketch maps of the underwater cavern of Devil's Hole, and I can see how an artificial shelf would just form a stopper in this narrow neck, and then the water drops below the artificial shelf and the fish wouldn't even get any sunlight. [161]

Q (By Mr. Lionel) How far down is that neck?

A I don't have the precise figure. Perhaps Dr. Dudley has it. I think it is about 35 feet.

Q You say you dove in Devils Hole?

A No, I never did. I have not. I went in with a face mask and snorkel and just to a depth of about three feet.

Q Did you notice any ledges around there?

A One could see from the surface, just lying on the surface with a face mask and looking down, one could see the next ledge down, which is about 15, 20 feet, something on that order.

Q And there's another ledge about 15 to 20 feet down?

A I think that's the right figure.

Q And that is before the bottom?

A Before the neck.

Q Before the neck. Now, is there any reason why pupfish could not thrive on that artificial ledge if the water were, say, just a few inches above it?

A That is something that would be risking the future of the species, because we do not know what the light quality would be if the water level dropped another 15 feet.

A second factor is that the water isn't suddenly [162] going to go down to that level like pulling a drain out of a bathtub. It will go down gradually. What will the pupfish do between the time they're denied access to the natural shelf they're now using and the time the water level drops to the shelf which is 15 feet or so below, because there's a time span there of perhaps a year or two or maybe three years, and they'll have no place to successfully spawn except to try to use the artificial shelf.

Q (By Mr. Lionel) But aren't there ledges which are just a few feet under the water level, small ledges?

A Not that I know of.

Q Now, let's assume that we use this lower ledge which is about 15 feet or so down, you say the main problem would be the quantity or quality of the light that would get through to that so that the algae could grow?

A That's what I think would be the chief problem; yes.

Q Now, do you know of any reason why there couldn't be appropriate light, artificial light, used for that purpose?

A A proper type of lighting?

Q Yes.

A Could be used to stimulate algae growth.

Q Yes; well, whatever has to be used to stimulate, that's correct. I would assume that could be done? [163]

A I think it probably could.

Q (By Mr. Lionel) There are different species of pupfish in the various springs in Ash Meadows; isn't that true?

A There is one other species, full species, in the springs at Ash Meadows, and it is divided up into two sub-species, one of which lives in a single set of springs and the other lives in the other springs in Ash Meadows.

Q Now, pupfish themselves are pretty hardy, aren't they? In fact, they have survived for many, many years; is that correct?

A Yes.

Q And in different environments?

A That's correct.

Q In fact, the water temperature in Devil's Hole is approximately 93 degrees Fahrenheit; is that correct?

A Varies from 91 to 93 degrees Fahrenheit.

Q And, in fact, these pupfish have lived in colder temperatures about in 30 some degrees Fahrenheit; is that correct?

A 30 degrees Fahrenheit?

Q Yes.

A Not to my knowledge. When you say "lived," they may have survived that temperature, but they do not live. There's a difference between living and surviving. They will [164] not reproduce and live in a permanent population at that temperature; no.

Q (By Mr. Lionel) Well, I am assuming that these fish, pupfish, and I'm including the species in Devil's Hole, have been on the scene for many years, perhaps since the Ice Age?

A Yes.

Q Which is a pretty cold time. And I assume the waters were quite cold in those times?

A There are some pupfish in the Death Valley System that can stand very low temperatures with the water probably down close to freezing and very high degree of temperature in summer. But your Devil's Hole pupfish is not one of those that we know can survive and reproduce successfully at such temperature ranges.

Q Has any Devil's Hole pupfish been taken out and kept in colder water than exists in Devil's Hole?

A Some experimental work on the temperature tolerance of the Devil's Hole pupfish was conducted by Dr. James Brown and one of his graduate students, Dr. *Feldman* (phonetic), and a paper was published on this stating that yes, they can tolerate much lower temperatures, but tolerating temperatures and surviving is two different things.

Q And actually the experiment indicated that they could survive in water having entirely different chemistry [165] than that which exists in Devil's Hole?

A What was that statement?

Q (By Mr. Lionel) That the experiments have indicated that the Devil's Hole pupfish can survive in

waters which have different chemistry than that in Devil's Hole?

A They can tolerate water of different temperatures.

Q But what you're talking about, Doctor, is the question of breeding?

A Right.

Q We're talking about really transplanting them elsewhere so they could breed elsewhere?

A Yes.

Q Now, what is the maximum number of fish that have been taken any place for the purpose of transplanting these fish?

A Seventy-five fish were removed by Dr. Ira Rivers, Chairman of the Department of Biology of the University of Nevada, in 1947, and transplanted to a spring about three miles west of Devil's Hole. This is the maximum number of miles they have ever been removed for transplant purposes.

Q Were there any reports prepared with respect to that?

A Were there any what?

Q Reports or papers?

A He wrote a paper—it appeared in a paper he wrote [166] on insects. He just mentioned in passing that he had taken seventy-five of these fish out and put them in this other spring. And I corresponded with him subsequently and he said that—

Q (By Mr. Lionel) But that's all there is to it. We don't know whether he put them in other springs where there are other pupfish, do we?

A That's correct; we don't know exactly what spring he put them in.

Q And if he put them in another spring where there were other pupfish, the other pupfish could very well have eaten the Devil's Hole pupfish?

A That is correct.

Q Now, where are there transplant experiments going on now with respect to Devil's Hole pupfish?

A On June 13, twenty-five Devil's Hole pupfish were removed from Devil's Hole and placed in a spring well about one mile due north of Devil's Hole as an experimental transplant.

Q Who did that?

A The National Park Service, in conjunction with the State of Nevada Fish and Game Department.

Q Have you had an opportunity to observe that?

A I have not been out. I was hoping I might have a chance on this trip. [167]

Q (By Mr. Lionel) Where else?

A One plant was made several years ago, I think in 1969 or 1970, to a warm spring in *Saline* Valley (phonetic), which is a valley lying between Owens Valley and Death Valley.

Q How many pupfish?

A I think there were twenty-four at that transplant.

Q Did you observe that?

A I never actually observed that.

Q Are there any others going on at the present time?

A Actual transplants?

Q Yes, actual transplants?

A No, not at the present time.

Q Do you know what the Bureau of Reclamation is proposing to do around Boulder Dam?

A Yes, I do.

Q What are they going to do?

A They are building what they hope to be a successful refuge for the Devil's Hole pupfish below Boulder Dam.

Q And in fact they had given out bids for the construction of an appropriate tank for the fish?

A That is correct.

Q Do you know anything beyond that?

A I know that there are some problems with the water temperature, and that the water chemistry is quite different [168] from that in Devil's Hole.

Q (By Mr. Lionel) Are they trying to get water chemistry which would be basically similar to that found in Devil's Hole?

A Well, I don't think they're going to be able to do this, although we don't know for sure that the water chemistry is one of the critical factors, that is, we should have water chemistry similar to Devil's Hole as possible, but it's conceivable that the Devil's Hole pupfish does not have to have exactly the same water chemistry. It's probably, as I mentioned before, a combination of water temperature, light and food, which would work in unison to provide the proper habitat for the successful reproduction of this fish.

Q Now, isn't it true that in the symposium in Furnace Creek in November of 1969, the persons who were present said that transplantation would be a secondary consideration, and that the prime consideration would be efforts to maintain the habitat at Devil's Hole?

A I think this was the conclusion that was reached at the end of the symposium.

Q Of what does the artificial shelf in Devil's Hole consist?

A It is made of fiberglass, 16 feet long and 4 feet wide, supported by styrofoam floats, and then after it was [169] constructed within a couple of weeks a frame of wood was used to give it greater strength. It started to sag in the middle, so that a wood frame was placed underneath it to give it strength.

Q (By Mr. Lionel) Do you think that some other material might be better for the purposes?

A I don't think so, because we have to be very careful not to introduce anything in Devil's Hole that would affect the water chemistry, and fiberglass is certainly one of the most inert materials that could be used.

Q I don't think I got an answer to my question before. Maybe it's my fault or maybe you gave it to me.

Is it a reasonable hypothesis that once this shelf, what you call the natural shelf, is completely above the water level, that the fish would be more apt to use the artificial shelf?

A They would be more apt to use it; yes.

Q Doctor, you filed an affidavit in support of the plaintiff's motion here, didn't you?

A Yes, I did.

Q And you also filed a prior affidavit about a year ago at the time this action was originally commenced; is that true?

A That is correct.

Q Who prepared those affidavits for you? [170]

A I prepared them myself under some suggestions from the Justice Department, because I never prepared such an affidavit before.

Q (By Mr. Lionel) I noticed that the affidavit which was filed this time ended, the last two pages

were typed on a different typewriter. Was there any reason for that?

A There was in the original typing of this second affidavit an error made in the Justice Department, and there wasn't sufficient time. I received the affidavit on the day before I was to depart from Ann Arbor, Michigan, so I had my own secretary correct the typographical error.

Q In fact, there were some changes made in the affidavits, too, weren't there, of substance?

A I don't remember the details. There were certain changes made between the two affidavits, because I had published more papers, and so forth.

Q Well, in the first affidavit, and I'm reading from paragraph 6, you say: (Reading:)

> "The artificial shelf has been used by *Cyprinodon diabolis* for feeding and rearing of young, but how long it can continue to function effectively under a regime that sees the water level of Devil's Hole continuing to fall is questionable."

You remember that? [171]

A Yes, I do; very definitely.

Q (By Mr. Lionel) Now, in the second affidavit, the one that was just recently filed, you don't say that at all?

A That's correct.

Q And now you say there's no evidence there's been any breeding on this shelf?

A That's correct.

Q Aren't they feeding on this shelf, the artificial shelf?

A Yes, they have been seen feeding on the artificial shelf.

Q And aren't the young being reared on that shelf?

A We have noted newborn young on the shelf.

Q Why would your present affidavit say there is no evidence that there has been any breeding on this shelf?

A Because as of May 30 we had no evidence that there was breeding on the shelf.

Q But since May 30 there has been evidence of breeding on the artificial shelf?

A On June 2, on June 2, we detected for the first time the presence of young fish on the artificial shelf. At the time the affidavit was submitted that's correct.

Q In your first affidavit, and I'm reading from paragraph 7—it's actually the second sentence—you say: [172] (Reading:)

> "As the water level"—

and perhaps counsel can give you the copy of these, but I'm reading this and this is what it contains; if you have any questions, just stop me, Doctor—

A All right.

Q (By Mr. Lionel((Continuing):

> "As the water level continues to drop I anticipate that reproduction will decrease as the species is forced entirely on its man-made (sic) environment."

In the second affidavit, the current one, you say: (Reading:)

> "As the water level continues to drop I anticipate that effective reproduction will fail as the species is forced to rely entirely on its man-made (sic) environment."

Why do you use the word "effective" this time?

A I made great, much more detailed studies in 1972 than I had when the first affidavit was issued.

I did not have anywhere near as much information on the biology of the fish as I gained in the three censuses that we ran this year, April and June, so it was my feeling, after the intimate information that we got from these very detailed studies and observations of the fish, that the effective [173] population, effective breeding of the population, was the factor and would be considered here.

Q (By Mr. Lionel) What you mean is, that the amount of fish that you would have there would probably be lower?

A Lower with respect to what?

Q Well, you're not saying that they could not live on the artificial shelf?

A What I'm saying is, I do not think that the artificial shelf will provide an effective breeding population so that this species will survive. If it has to rely entirely upon the artificial shelf, I don't think the production will be high enough to provide this threshold population that I mentioned previously, which is required for the eventual survival of the species.

Q Do you think the failure to have such a threshold population has perhaps inhibited the projected transplants?

A Well, we certainly have tried to keep the number down because of this idea that we shouldn't remove more than 10 percent of the total population at the time these transplants were made.

Q Now, I take it then that what you say in here in your testimony is based upon the fact that there would only be an artificial shelf to rely upon, and there would be no other kind of perhaps natural rock shelf? [174]

A That is correct.

Q (By Mr. Lionel) And if there was such a natural rock shelf, you feel that appropriate light could be manufactured so as to properly promote the algae growth?

A If there were such a natural rock shelf below the present one, you mean?

Q Yes.

Q I think that if we limit the depth to which we're going to go, that would probably be true; yes.

Q Now, actually, how large is this rock shelf now?

A Well, the original rock shelf is about 16 feet long and 4 or 5 feet wide, and had a maximum depth approaching 3 feet at the deepest point at the dropoff into the main pool.

Q And what is there now?

A It's about 80 percent exposed now, so it's just three feet or something, three feet or, three or four feet. I haven't seen it most recently. On June 2 there was about three or four feet.

Q And it appeared to be thriving on it now?

A What?

Q They appeared to be thriving on that?

A Well, the population has definitely fallen, and because the population size depends upon the amount of water on the artificial shelf, and as the amount of water has gradually dropped the total population in correlation with the amount [175] of water has also dropped.

Q (By Mr. Lionel) But actually it woudln't take a shelf of the same size lower down in the hole for the fish to use, in other words, the original size—?

A If you had one half the size of the original shelf I should think that would be adequate.

Q Or perhaps even a quarter?

A Possibly; but we have to consider what artificial light will have as long-run operation, whether the fish are going to respond in some deleterious fashion to the continued use of artificial light rather than natural sunlight.

This is an unknown factor. It's an abnormal situation.

THE COURT: Excuse me, Doctor.

BY THE COURT:

Q You speak of natural sunlight. Are you talking about the direct rays of the sun?

A In part that, and in part the natural incident light.

Q (By Mr. Lionel) I'm sorry, natural what?

A Natural incident, natural incident light, as well as the direct rays of the sun.

Q But the purpose of the light is to grow the algae?

A Yes. We might get light that would grow algae, [176] but not necessarily be sufficient for the reproductive process of the fish itself.

Q (By Mr. Lionel) Do you think it's technically feasible to do that?

A I don't know.

Q You don't know?

A We could have light that would be sufficient for algal growth but not necessarily in the long run would be sufficient for the whole embryological development of the population growing young.

Q In other words, what you're saying is, we don't know whether or not that would be adequate? It could be?

A That's right. It could be, but we don't know.

* * *

REDIRECT EXAMINATION

BY MR. GERMERAAD:

Q Dr. Miller, you are an expert on this light that would affect the pupfish?

A I am not an expert on this light; no.

Q In the 35 or 36 years that you have been studying the desert hole pupfish, what has been the maximum water [177] depth in which this spawning then has taken place?

A The maximum water depth was about three and one-quarter feet.

Q (By Mr. Germeraad) So if we were to hypothetically have the present ledge, natural ledge, completely exposed, and supposing that there was a ledge 15 or 20 feet below the water level, is it your opinion that the fish could spawn at 15 or 20 feet?

A From what I know of the Devil's Hole pupfish, and from what I know of the other species of pupfishes, we have no evidence that any pupfish will spawn below a maximum depth of five feet. Most of them spawn no deeper than three feet.

Q At various times during the cross-examination reference was made to several different types of species of pupfish. Sometimes you talked about other types of pupfish or other species of small fish being able to survive in transplanted environments.

Have there been any successful transplants of Devil's Hole pupfish to this date?

A No, there have not.

Q So questions as to whether the pupfish can survive or can be successfully transplanted then would be contrary to all the evidence so far?

A All the evidence so far. [178]

MR. LIONEL: I'm going to object to this question, your Honor. I think that's really asking for conclusion upon conclusion based upon other people's evidence and not that adduced here, and I really object to it.

MR. GERMERAAD: I'll rephrase the question.

MR. LIONEL: May we have the answer stricken, your Honor?

THE COURT: The answer will be stricken.

Q (By Mr. Germeraad) What is your opinion as to the real possibility of successful transplants of the Devil's Hole pupfish?

A I am not very otpimistic because I don't think we have the required information about the light intensity and quality which I judge to be a very important factor in the successful reproduction of this fish.

I have gone to the trouble of trying to devise the proper equipment for measuring the light intensity and quality in Devil's Hole on a year-round basis, but under the present conditions we would not be able to try out this type of equipment.

If we had tried to use this equipment, say, 10 years ago, we might have the information available, but if we're going to adapt to introducing artificial light into Devil's Hole to stimulate algae growth and the water keeps [179] dropping then obviously we don't know what natural light, what the natural photo-period is, and without this information I am not optimistic about the success of transplants.

Q (By Mr. Germeraad) Changing the subject from transplants to the artificial shelf, what is your best judgment as of this date as to the success of maintaining a population on an artificial shelf such as we have at the present time?

A I don't think that we can count on it to provide a sure means of survival of the pupfish.

Q Is this a small doubt, a great doubt?

MR. LIONEL: Well, now, if your Honor please, the witness has testified, and I don't think this is proper redirect examination, and I'm going to object to that question. We really can't qualify a doubt.

THE COURT: Sustained as to the form of the question.

A The artificial shelf is a stopgap device and eventually, as I mentioned, if the water level continues to drop indefinitely, it will not succeed at all. It might tide the species over until such time as the water level could be restored. [180]

* * *

BY THE COURT:

Q Doctor, you first saw Devil's Hole in 1936, did you say?

A That is correct.

Q And about how far below ground level was the surface of the water then?

A About 50 feet.

Q Approximately that area now?

A Yes, approximately.

Q Hypothetically, assuming that the water level was up near the surface, is that a factor at all that would bear upon the species surviving and living? Is there any particular weight to be given the fact that the surface of the water is down 50 feet below the surface?

A Well, we have two factors here. We don't know when the water was at the surface and overflowed. Presumably [181] at the time that Devil's Hole was full and overflowed, the ancestral pupfish gained access to Devil's Hole, and then over a period of time has adapt-

ed itself to the peculiar conditions that we've noted in Devil's Hole at the present time.

But we don't know anything about the time relationship: was it 1,000 years, 5,000 years? I haven't heard any definite testimony given as to the age, as to the actual time of overflow of Devil's Hole, and I don't think we have any objective evidence on the age of the overflow.

* * *

EDWIN PHILIP PISTER,

(called as a witness by the plaintiff, being first duly sworn, was examined as follows:) [182]

* * *

DIRECT EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff:

Q And could you give us your address, please, Mr. Pister?

A I reside at 437 East South Street, Bishop, California.

Q What is your current position of employment?

A I am currently employed by the State Department of Fish and Game in California as a Fishery Biologist, supervising fishery management and research projects in the southeastern part of California.

Q Do you also hold another position which does not pay a salary at the present time?

A Yes, I do. I'm currently serving as Chairman of the Desert Fishes Council. The Desert Fishes Council is a national organization comprising governmental scientists, academicians, private citizens who are concerned over the survival and well-being of America's desert fishes.

Q Could you give us a little information about your educational background, Mr. Pister?

A I hold a Bachelor of Arts Degree in Wildlife Conservation from the University of California in Berkeley. I hold a Master of Arts Degree from the same institution in Aquatic Biology.

Q And what were the years of these degrees?

A I received my Bachelor's Degree in 1951; my Master's [183] Degree in 1952.

Q (By Mr. Germeraad) Mr. Pister, are you also a member of various professional societies?

A Yes, I am. I'm, of course, affiliated with the Desert Fishes Council as Chairman. I'm a member of the Rare and Endangered Species Committee of the California-Nevada Section of the American Fisheries Society. I'm associate member of Sigma Chi, a national research society. I'm also a member of the Pacific Fisheries Biologists.

Q Mr. Pister, have you over the years published any articles concerning the pupfish?

A Yes, I have.

Q And desert fishes?

A Yes.

Q And in approximate number, how many publications would these number?

A Specifically relating to the desert fishes, there would be three.

Q When did you first begin studying the pupfish generally and then the desert hole or Devil's Hole pupfish specifically?

A The Devil's Hole pupfish? I began my study of the desert fishes approximately 10 years ago; and intensively during the last five years.

Q You mentioned that the Desert Fishes Council, one [184] of its purposes is preservation of various desert fishes; is that correct?

A That is correct.

Q (By Mr. Germeraad) And what plans or what programs have you carried out to attempt any preservation or to help these fishes?

A We have a very extensive program to this point, I might interject, that we have restricted ourselves to those species within the Death Valley drainage system of California and Nevada.

We are now expanding our operations to cover the entire Great Basin and Range province. Specifically, we have conducted preservation programs relating to essentially ten species and sub-species of fishes in the Death Valley system. Some of these have been successful; others have not.

Q I asked Dr. Miller previously about attempts to establish refuges or artificial environment for the desert hole pupfish, and he told me that they were unsuccessful.

What is your opinion?

A I concur with Dr. Miller's observation here. To date we have no knowledge of any type to indicate that any of the attempts have been successful.

Q If you were—and this is hypothetical—to be able to establish an artificial environment, do you feel, is this a solution to the problem of *Cyprinodon diabolis?* [185]

A No.

Q (by Mr. Germeraad) Why not?

A I don't feel it would a successful long-term answer. Our attempts to date have been simply those

in desperation of attempting to keep the species alive until such time as the natural habitat is restored.

The reason for this is that a species of animal is what it is because of the unique environmental forces exerted upon it, where it is and where it evolves, and the minute these animals are removed from their natural environment, they begin a shift in another evolutionary direction.

And this is probably philosophic, actually, but practically why aquarium environment, say, would not be a successful long-term answer to what we're attempting to do.

Q What is the value of the desert hole pupfish to mankind?

A Well, I think we can include the Devil's Hole pupfish along with the other ones we're speaking of here. First off, these fishes have exhibited amazing physiological adaptations. They have learned to survive high temperatures, as high as 112 degrees, and as a genus, low temperatures clear down to nearly freezing.

This is not true, of course, of the Devil's Hole pupfish, which has not exhibit the same ability to withstand [186] temperature extremes as, say, the Owens pupfish which can go to temperatures of essentially 100 degrees Fahrenheit down to 33, just before water would freeze.

Of course, they have learned equally to adapt to low oxygen levels, high salinity. Their osmo-regulatory mechanisms, and defined that would be their ability to adapt to different ionic levels in water, are amazing. This is one of their major interesting features.

Q (By Mr. Germeraad) Is this something that is restricted to the Devil's Hole pupfish, or is this as to all the species; or does it apply specifically to the Devil's Hole population species factor?

A I would restrict this more to the genus. But the Devil's Hole pupfish specifically would have this same general adaptability as would the others, I would think.

Now, we talk about, and this was mentioned earlier, the ability, how hardy these pupfishes are, and their ability to adapt. What we're speaking of here is over long periods of time. We don't say we can take, say, the Devil's Hole pupfish and remove it and stick it somewhere and have it survive.

But the ability of all of these fishes, their hardiness, is derived over generations of time and actually millenia of time. This is where they have gotten these amazing adaptations. Actually, you may think of this as being [187] long, long periods of time. But actually when we speak of the evolutionary development of a species or animal, this is a very short period of time. Ten thousand years for a full species to evolve is practically overnight as we think of evolution.

Q (By Mr. Germeraad) So then are you saying that they have others or generally some of these desert fishes have ability to adapt, and this is an adaptation over many years, and certainly hundreds of thousands, as opposed to two or three or four; is that it?

A This would be essentially my feeling; yes. There are many other reasons, too, why they're valuable to us.

Q Go ahead and tell us, please.

A I think probably the research potential of these fishes—and one of the reasons I am interjecting species other than the Devil's Hole pupfish is because we find other species threatened equally, particularly the other species as I pointed out *nevadensis pectoralis,* the Warm Springs pupfish, and *mionectes,* a sub-species, the Ash Meadows pupfish, which will be affected eventually by the same general water level decline.

Q Well, I think the Court could almost take judicial notice of many types of species being threatened by the enactment of the Endangered Species Act, but I'd like you really to kind of tune in, in a way, just on the Devil's Hole [188] pupfish because that's what we're really concerned with here.

A We'll zero in on that then.

Q (By Mr. Germeraad) You can relate it to others but please—

A As a research potential again, these have then just almost an unlimited future. Right now I know of any number of graduate students who would just literally give anything to have an adequate number of fish to use for experiments at the doctoral level, to go through and do research papers on, if these fish were available. They have been in the past but more recently there have not been adequate numbers received to allow this.

Speaking of species preservation, and of the Devil's Hole pupfish particularly here, these little animals very well may hold the key to our future as human beings as they learn to adapt to these changes in their own habitat, just as we're having to do through our polluted waters and our smog and so on.

And where the Devil's Hole pupfish as an individual is valuable, the great philosopher and evolutionist, Wallace, back in 1964 made a statement that we may take all of the species that have lived on the earth, and live here now, and as the letters of a sentence or the words of a paragraph, explaining our lives, our history, before us, and for each one removed this story becomes that much less intelligible. And I [189] concede that this is very true, as I look at it as a scientist, because if this species does become extinct, and heaven forbid!

we can never bring it back for all the expertise we've developed ecologically in other fields.

We have a very poor understanding of the world in which we live. We tend unfortunately to judge the value of the species in light of our current knowledge of them. In this respect we actually breed by the lamp of our own conceit. I think this is a valid observation here.

In 1972 we just can't judge what somebody might be worth to us in 1982 or 2072.

Q (By Mr. Germeraad) But do you feel that today, even though you don't know what the value may be tomorrow, today do you feel there is enough value for it to be important to man?

* * *

A Thank you, your Honor. I would like to conclude with one other observation here. I think we—and I will [190] admit to being philosophical here—I think the position I have as Chairman of the Desert Fishes Council, you have to have a philosophical overview of what you're trying to do, otherwise it becomes a mechanical thing and it loses much of what we're trying to attempt by the various threats to the species.

And I'm going to conclude with a very philosophical statement, that in the first chapter of Genesis, the first page, literally, man is given his dominion and stewardship over the fish and the fowl of the earth.

Up to this point our stewardship has not been a good one. Stewardship by itself has the obvious connotation of why its use, and why its use certainly doesn't include destroying anything, because we have learned that unless we learn to live with other species than ourselves on this earth—we refer to ourselves as individual species, the genus homo—we cannot continue to live on it long either.

MR. GERMERAAD: I'm going to move from the philosophical to just a few technical matters which were also touched on by Dr. Miller. I don't want to be repetitive:

Q There was mention of a threshold number. Could you give me your view of what, of whether this operates and what that threshold number might be for the desert hole pupfish?

A I would agree certainly that there is a valid [191] theory here of threshold numbers. What this is, we obviously don't know in the case of the Devil's Hole pupfish, because we haven't been successful in establishing it anywhere, I would say that certainly it would be in the neighborhood of what we've attempted here in the recent past, and no less than that, of somewhere in the neighborhood of twenty-five individuals, and hopefully more than that. The larger number you have the greater your chances are, of course, but we've been very limited this way by the overall population within Devil's Hole.

Q (By Mr. Germeraad) Do I understand you to mean that then you believe that the threshold number that's necessary would exceed twenty-five?

A It could well exceed this, yes. We don't know, for instance, if our lack of success in the different experiments we've run has been the result of low threshold or the inadequate number not exceeding the threshold, or some other biochemical factor that we're not aware of.

Q What is your view as to the interrelationship of the natural shelf that we've been talking about today being covered by water or not covered by water, and the continued existence of the pupfish?

A I would say that the artificial shelf has not shown, to this date anyway, that it will do the job. We run then into the theoretical problem—not actually a [192] theoretical problem; it's a very real problem —when the shelf gets down to a point where it hits this narrowing area down at the bottom of Devil's Hole, that we cannot expect it to be usable any more, but if the water should go below that point or even remain just an inch or two above it, I think we cannot at this stage say that the artificial shelf gives us any reason to be optimistic as to its ultimate value to us.

Again, as Dr. Miller pointed out, this is an expedient that's been used in desperation more than anything.

Q (By Mr. Germeraad) Specifically, if the present natural shelf is completely exposed, is now covered maybe by 10, 15 percent, do you in your professional judgment feel that pupfish can survive?

A I would have to answer it this way, Mr. Germeraad. I would say I would hope they could, but I would be very doubtful that they could.

MR. GERMERAAD: I have no further questions, your Honor.

THE COURT: Cross-examination.

CROSS-EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Doctor, I have no objections to philosophers.

A I appreciate your point, though. [193]

Q (By Mr. Lionel) When you say you would be very doubtful that these pupfish could survive if the shelf they now use was exposed, you don't really have anything concrete? You really don't know; is that a fair statement?

A This is very true; yes.

Q Now, actually, the Devil's Hole, which is an adjunct of the Death Valley National Monument, is an area that people can't go into; is that correct?

A This is right. It's been fenced off.

Q It's fenced off with barbed wire; isn't that true?

A This is true.

Q And unless you had someone from the Park Service to go there with a key to open it up and let you in, a person couldn't even get in there to see the fish?

A This is correct, at present.

Q Well, hasn't it been that way for a period of some years?

A Yes, this is correct.

Q All right. Doctor, I show you what's been marked as Defense Exhibits B for identification, and ask you if you prepared that?

A Yes, I did.

Q And I refer you specifically to page 3 of that exhibit, and ask you if you prepared what is contained on that page? [194]

A Yes, I did.

Q (By Mr. Lionel) And is what is contained on that page true?

A I would put it this way. In any reporting of a verbal output this way, you interpret it to the best of your ability under the circumstances.

Q Do you have a tape with respect to what occurred at that panel discussion on November 18, 1969?

A Yes, there is a tape of this.

Q And who has that tape?

A I have it.

Q I see. May I request that it not be destroyed, Doctor?

A Yes; sure.

Q But where it says here: (Reading:)

"The first step toward habitat protection in this area was the establishment in 1952 of Devil's Hole as part of Death Valley National Monument. Interestingly, this was done ostensibly because of the unique travertine limestone formations, but not to preserve *Cyprinodon diabolis,* the unique fish inhabitant,"

is that fair reporting of what occurred?

A I would have to listen to the tape again, Mr. Lionel, but I would like to add this one point. [195]

Q (By Mr. Lionel) Well, give me an answer to my question, please?

A Okay. Yes. But let me—the "yes" is not—just acknowledging your last statement, not a concurrence with what you implied.

I would say this, that Dr. Hubbs, in making his statement that day, was giving us the basic background of Devil's Hole. He mentioned his frustrations in attempting to have this area set aside, and in so doing he mentioned that the travertine limestone deposits were brought into the picture because this strengthened his overall proposal to the Park Service.

Q But this page—It says on here, and you wrote it—"but not to preserve *Cyprinodon diabolis,* . . ."; you wrote that, didn't you?

A Yes, I did write that.

Q And that was as a result of what you heard Dr. Hubbs say at that panel discussion?

A If I were to write that again, I'd say "No."

Q I'm sure it might be written differently, Doctor, that's my point.

A I think I should add here, though, out of fairness to what we're trying to accomplish, that if I were to have written that, say, six months ago, I would have added "not necessarily or entirely" because there are other [196] features in Devil's Hole in addition to the fish, as you're well aware.

Q (By Mr. Lionel) I understand. But you wrote this. Did all the people who participated at that symposium get a copy of this report?

A Most of them did; yes.

Q Do you know if Dr. Hubbs did?

A I'm sure he did.

Q Did he tell you that this wasn't what was said at that symposium?

A I don't believe we've discussed the matter.

Q How about Dr. Miller, did he ever tell you that that was not said at that panel discussion at that symposium?

A No, he has never said this either, but I will add, too, that Dr. Miller did not participate in that discussion, nor did he state this, as the other paper said.

Q But you're not saying that that wasn't said there, are you?

A No, I'm not saying that. This is the difficulty of trying to report something that people say.

Q And I assume at the time you prepared this you had the tape with you?

A Yes.

Q And used the tape; is that correct?

A Yes; it's one of those things, you listen to the [197] tape and take notes as it goes along.

Q (By Mr. Lionel) Well, what I'm saying is, at the time you prepared this report, you had the tape available—

A Oh, yes, yes.

Q —and in fact used it in the preparation of this report?

A I certainly did.

MR. LIONEL: We offer "B", your Honor.

MR. GERMERAAD: No objection.

THE COURT: It will be received.

(Defendants' Exhibit B, having been previously marked for identification, is received in evidence.)

Q (By Mr. Lionel) Doctor, have you ever gone in the water, underneath the water in Devil's Hole yourself?

A I have never dove in, Mr. Lionel, but I have looked with Polaroid glasses from just above it where I could see a good distance down into the water.

Q About how far?

A I would guess, say, 15 feet.

Q Is there another ledge down there?

A To my knowledge—I'll have to be truthful—I cannot recall at this time.

Q Ever heard anybody say there's another ledge down there, down about 15 or 20 feet? [198]

A Yes, I have.

Q (By Mr. Lionel) Who have you heard say that?

A I believe Dr. Miller made this comment here a short time ago.

Q Have you ever noticed any smaller ledges just below the surface?

A Very—it would depend on how you define a ledge. I would say small areas that would project to a certain extent but not a significant ledge.

Q There's nothing unusual about the ledge that the fish now use, is there?

A Yes—

Q It's a rock formation with rock rubble on it; isn't that correct?

A —the only unusual thing would be that this is probably the only ledge that is maintaining a species all by itself.

Q And this apparently came, as Dr. Dudley said, from falling in from the roof at the time the roof gave way?

A This is what Dr. Dudley said. I'm not a geologist. I wouldn't render an opinion on that. [199]

* * *

Q In 1970 there was another symposium, wasn't there, at Furnace Creek; isn't that correct?

A Yes, there was.

Q And this time it was the Desert Fishes Council?

A Yes.

Q And you again reported that; is that correct?

A That's right.

Q And on page 6 of that it states: (Reading:)

"As an emergency measure, the biologists installed an artificial spawning shelf last May 7. A bank of electric lights to promote food growth was installed July 17. Since then the fish have reproduced well and seem to be at least holding their own."

Do you remember writing that?

A Yes, I do.

Q All right. Now, Doctor, isn't it true that at this symposium the prior year the people who were present decided that they would use their energies to keep that habitat?

A This is correct.

Q And that transplanting of the fishes in Devil's Hole was only a secondary consideration, and that all

energies of the members of the people present would be devoted [200] to keeping that natural fish habitat?

A Not all the energies; our primary effort would remain that way.

Q (By Mr. Lionel) Including publicity and whatever else had to be done for that purpose?

A Yes, although we had not included publicity on the transplant times.

MR. LIONEL: Thank you.

REDIRECT EXAMINATION

BY MR. GERMERAAD:

Q Mr. Lionel mentioned a wire fence of some type that surrounds Devil's Hole at this time.

Has this prevented the facility from being used as a scientific resource by the community and through your knowledge of the Desert Fishes Council?

A No. All valid requests for research have been accommodated within the limitations of the population numbers.

Q Do you have any knowledge as to whether there are also visitors that go to Devil's Hole during the year?

A Yes, there are. There have been official visitors. I don't know what Park Service policy is on people who just come back, come by and want to look down into Devil's Hole.

I do know the news media have been admitted any number of times to both photograph the fish and to report on the problem there at Devil's Hole. [201]

Q (By Mr. Germeraad) Mr. Lionel, towards one of his last questions, asked about your primary purpose or efforts under the Desert Fishes Council and secondary efforts, the "secondary" being the transplant

efforts and the "primary" being the preservation of the habitat itself.

Why did you, or do you agree with this policy?

A No. It's probably not in the context you mean here. Our basic function, as delineated by the Constitution of the Desert Fishes Council, is to promote knowledge and to enhance the basic position of the desert fishes by protecting their habitat.

Q Do you think it is proper to put the primary emphasis on the preservation of the present habitat?

A Yes, I certainly do.

Q Could you tell us why you think that is the proper emphasis?

A I think that this is the necessary thing because the very reason that we try to preserve the species, to maintain them in their current evolutionary direction, is the very thing here, plus the fact that Devil's Hole—we don't know of any other place we can raise them or have pupfish reproduced, that is, Devil's Hole pupfish.

Q Supposing that there was a transplant, would this satisfy the purposes of the pupfish? Is it a solution?

A If there were successful transplants? [202]

Q (By Mr. Germeraad) Yes.

A No.

Q Please explain why.

A Simply because Devil's Hole itself is the habitat in which they evolve, and I might add in which they continue to evolve, but would no longer continue to evolve if they were removed to another location.

MR. GERMERAAD: No further question, your Honor.

MR. LIONEL: Just for a moment.

RECROSS-EXAMINATION

By Mr. Lionel:

Q You know Mr. Sterling Bunnell, don't you?

A Yes; not well, but I'm acquainted with him.

Q He was present in 1969 at that symposium?

A Yes, he was.

Q And did you read his article: "In Action Tomorrow"?

A Yes, I did.

Q Including the article which Dr. Miller read before with respect to the Presidential Proclamation of 1952?

A Yes.

Q You have read that, haven't you?

A I haven't read it for some time. It's not vivid in my mind, but I have read it.

Q You know what I'm referring to? [203]

A Yes.

Q (By Mr. Lionel) I'm referring to the fact that when Hubbs and Miller got the Presidential Proclamation, they did it in fact—

MR. GERMERAAD: Your Honor, I object. We have contrary testimony about Dr. Miller's reasons—

THE COURT: This is proper. He can cross-examine.

Q (By Mr. Lionel) The statement I'm referring to in Mr. Bunnell's article is the one which I'm going to read now. I'm going to see if that's the same one: (Reading:)

> "In 1940, Carl Hubbs and R. R. Miller first suggested that the hole be made part of the Death Valley National Monument. Park Service naturalists initially rejected the idea, citing its distance from monument headquarters and their doubts as to

> the uniqueness of the species. But in 1952, Hubbs and Miller were successful in convincing the service that the hole was worthy of inclusion in the monument. In doing so, they cited an unusual travertine limestone formation in the hole as a pretext, since park service policy at that time did not consider saving a rare animal species sufficient reason for acquiring land."

Now, that is what I'm referring to when you say [204] you read Mr. Bunnell's article "In Action Tomorrow"?

A "Action in California Tomorrow."

Q "In California Tomorrow," which is something widely read by conservationists in California; is that correct?

A I wouldn't say widely read. It has a rather limited circulation. But it is a California publication.

Q And Mr. Bunnell was present—

A Yes, he was.

Q —at the time of that symposium, and particularly the meeting which was chaired by Dr. Miller at which Dr. Hubbs was panelist and which you reported on page 3 of that symposium, Exhibit B?

A Yes. I would not agree with the article, however, to this extent, that Dr. Miller has never stated that he was involved in that in any way to me.

Q Oh, it was Dr. Hubbs who did that?

A Who made any statements relative to the limestone travertine formations.

Q And what Exhibit B says, that the Presidential Proclamation was not for preserving the *Cyprinodon diabolis?*

MR. GERMERAAD: That's a legal argument which probably would be best saved until the summa-

tion and not as a predicate for a question. So I object to predicating any question on Mr. Lionel's interpretation of the Presidential [205] Proclamation, your Honor.

MR. LIONEL: I was referring to the article on page 3, your Honor.

THE COURT: Objection overruled. It's proper cross-examination.

Q (By Mr. Lionel) You understand my question?

A I think the key point there is the word "ostensibly."

Q Well, the words in here, "but not to preserve *Cyprinodon diabolis*", that came, you say, from Professor Hubbs and not from Dr. Miller?

A This is correct. [206]

* * *

ARLIE JOHN HILLSAMER,

(called as a witness on behalf of defendants, being first duly sworn, was examined as follows:)

* * *

DIRECT EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Where do you live, Mr. Hillsamer?

A I live at 701 I Street in Sparks, Nevada.

Q By whom are you employed?

A The Bureau of Land Management, the Nevada State [208] office.

Q (By Mr. Lionel) And what is your exact job there?

A I'm Chief of the Branch of Lands and Minerals Operations.

Q Do you know the defendants in this action, Mr. and Mrs. Cappaert?

A I have not met Mr. and Mrs. Cappaert.

Q You have not met them?

A I have not met them.

Q Have you dealt with their agents?

A Yes, sir.

Q And who, particularly?

A At one time an Attorney in Reno, Bob McDonald, Robert McDonald; another time, and simultaneously with Mr. McDonald a Mr. Sam Brooks; subsequently, Harold Hochmuth, an official in the company, and a Mrs. Mildred Johnson, are the parties that I recall having dealt with.

Q How about Mr. Delbert Holzman, ever deal with him?

A I think I met Mr. Holzman, but I'm not sure, sir.

Q Okay. In relation to what did you deal with these people, these agents, of the defendants?

A I was approached by Mr. McDonald in 1966, who inquired about the mechanics of exchanges under Section 8 of the Taylor Grazing Act. [209]

Q (By Mr. Lionel) What is Section 8 of the Taylor Grazing Act?

A It is an authority under which we may, in exchange for privately owned land, dispose of by patent federally owned land.

Q And where was this land that was being talked about?

A The area of interest is the Ash Meadows area of southern Nye County.

Q And about how many acres was involved?

A The original area of interest was on the order of 14,000 acres: I think slightly less than that. Ulti-

mately there was selected in eight separate selections a total of just over 13,000.

Q And where generally was this land with relation to the land that was owned by Mr. and Mrs. Cappaert?

A I don't know.

Q Well, actually, I take that back. Actually, it was really their predecessor, Spring Meadows, Inc.; isn't that correct?

A That's correct, sir.

Q And was this land anywheres in relation to fee land which they owned?

A I was told that the Spring Meadows, Incorporated—

MR. GERMERAAD: Object to hearsay of what he was told, your Honor. [210]

Q (By Mr. Lionel) What did you learn, as part of your duties?

A I learned that the company filed its applications and that it claimed ownership in support of other applications for rights-of-way to lands which had formerly belonged to others, previously patented land.

Q But do you know what the main purpose of this acquisition was of approximately 13,000 acres of previously patented land?

A It was represented to me by the applicants that they wished to enlarge upon an existing farming venture and conduct other activities with the land if they were to get it. There was some talk of the possibility of providing homes for workers in the area but—

MR. GERMERAAD: Again I would object to hearsay, your Honor.

MR. LIONEL: He's learned this, your Honor, as part of his job.

THE COURT: Overruled.

A (Continuing) —the major emphasis—

THE COURT: These are representations made by the applicants to the Bureau of Land Management?

MR. LIONEL: Correct, your Honor.

THE COURT: You may continue.

Q (By Mr. Lionel) And what did you learn? [211]

A The major emphasis, sir, was on the possibility of enlarging upon a farming operation.

Q (By Mr. Lionel) How about livestock?

A Yes, of course; with livestock.

Q Were you here in Court today and heard the testimony with respect to this Exhibit 11?

A I think that one; yes, sir.

Q And I think you heard Dr. Dudley testify that the area shown in red was fee land owned by the defendants.

Did you hear that?

A I heard that, sir.

Q And do you know whether or not the 13,000 acres or a portion of it is encompassed in this land which is shown here in red on Exhibit 11?

A I can only suspect from an inspection of that map from a distance—

Q Would you like to go over to it and take a look at it now?

A I don't have title records with me to the end that I could verify precisely what is patented to Spring Meadows, Inc.

Q Would the patent that was ultimately issued to Spring Meadows, Inc. refresh your recollection?

A Yes. I have the legal description.

Q You do have. I have not seen your files, have I, [212] Mr. Hillsamer?

A You have not, sir.

Q (By Mr. Lionel) And you're here pursuant to a subpoena?

A That's right, sir. There is in this file the same legal descriptions that are on the patent.

Q Well, would the patent refresh your recollection?

A Oh, yes, yes; of course.

MR. LIONEL: Your Honor, perhaps we can save time by offering C-1 which is a patent from the United States to Spring Meadows, Inc. of 5,645.33 acres.

THE COURT: It's marked "C-1"?

MR. LIONEL: It's marked "C-1", your Honor.

THE COURT: You're offering that.

Any objection?

(At this time Defendants' Exhs. C-1 thru C-10, being patents, are marked for identification.)

MR. GERMERAAD: No, your Honor.

THE COURT: It will be received.

(Defendants' Exhibit C-1, being a Patent, is received in evidence at this time.)

Q (By Mr. Lionel) I show you what is marked as Defendants' Exhibit C-1 in evidence, and ask you—I'll lay the foundation backwards—and ask you what it is?

A I'm sorry, I didn't hear you.

Q Will you tell me what it is, please; if you know? [213]

A This is a patent.

Q (By Mr. Lionel) And who was it issued by, and to whom?

A It was issued by the United States acting through the Bureau of Land Management, and issued to Spring Meadows, Incorporated.

Q Did you have anything to do with it?

A Yes, sir.

Q What did you have to do with it?

A I supervised the preparation and the processing of the documents that led to the issuance of that patent.

Q Now, this patent was for 5,645.33 acres; is that correct?

A Yes, sir.

Q Is that a portion of the 13,000 acres you were discussing before?

A It is, sir.

Q And was this patent issued pursuant to a federal statute dealing with the exchange of lands?

A It was, sir.

Q And do you know what lands were exchanged by Spring Meadows to the Government in exchange for that patent?

A Generally, yes, sir; and specifically, by reference to the file.

Q What generally? [214]

A Generally, they are in northeastern Humboldt County.

Q (By Mr. Lionel) And who selected those lands?

A I don't know who selected those lands.

Q And—well, did the Government select them and request them?

A No.

Q You don't know?

A They were offered in the exchange. I don't know who selected them.

Q Would you have anything in your files which would indicate who selected those lands in Humboldt County to be exchanged for the lands contained in this patent, C-1?

A It is unlikely that there is anything in this file.

Q I see. Could there be something in there?

A There is a possibility of discussions that may have gone forward—

Q Okay.

A —between the exchange proponent.

Q All right. Now, do you know why this patent only contains 5,645.33 acres, and why it did not contain 13,000 acres as was originally proposed as part of this exchange?

A Yes, I do know.

Q Why? [215]

A Because the remaining lands that were classified for disposal by exchange were not immediately available by virtue of conflicting mining claims, and subsequent to the patenting of this fifty-six hundred and some odd acres, the Secretary of the Interior vacated the classification of the remaining lands for disposal by exchange.

Q (By Mr. Lionel) Do you know why that was done?

A I don't know all of the reasons why.

Q What reasons do you know?

A I know that there was a large body of objection raised to completion of the remainder of the exchange.

Q Because of pupfish?

A This was among other reasons. There was a supposition that the passage of additional lands into private ownership would increase, result in an increase and demand for ground water.

Q All right. Now, in the original 13,000 acres, did it include any lands around Devil's Hole?

A The lands that were classified, the 13,000-plus acres that were classified, did not include any lands closer than a mile to Devil's Hole.

Q Well, before this patent was given, that is, Defendants' C-1, what was done to see whether there were

any objections from any Government agencies to the proposed exchange? [216]

A The exchange proposals—again, there were eight of them related—were all given the routine exposure of public meetings, requests for comment by range users, our grazing group of depositors board, the county commissioner—these transactions were given the routine treatment.

Q (By Mr. Lionel) How about from the Park Service?

A Yes, Park Service certainly; and U.S.G.S.

MR. GERMERAAD: Your Honor, I'm going to object on lack of foundation, how a man from the Bureau of Reclamation knows what the Park Service is doing, unless a proper foundation is laid.

MR. LIONEL: He's not from the Bureau of Reclamation, your Honor; Bureau of Land Management.

MR. GERMERAAD: Okay, then the B.L.M., how can he know what the Park Service is doing?

Q (By Mr. Lionel) Could you tell the Court just exactly how you would know how the National Park Service would be involved in this particular swap or exchange of land?

A Yes. The Park Service was invited to comment, and this is a matter of record. And this is because the Park Service is an administering agency of public land nearby.

Q Well, when you say "it's a matter of record," what record?

A The classification, the land classification procedures involved maintaining a record of entities and [217] individuals who received copies of decision proposals, which included invitation to comment. And the Park Service was a recipient of this.

Q (By Mr. Lionel) And did the Park Service make any objections to this exchange because of any part of the land would be near Devil's Hole?

A A qualified objection; yes.

Q And what was the extent of that qualified objection?

A The extent of it, if I understand your question correctly, was that the Park Service expressed concern for the possibility of water withdrawals within a mile of Devil's Hole.

Q So, as I understand it then, the Park Service objected to there being any lands classified for the exchange which would be within one mile of Devil's Hole because of possible water withdrawals within that one mile; is that correct?

A They objected—it's correct to the extent they objected to land disposal within a mile of Devil's Hole.

MR. GERMERAAD: Your Honor, I'd like a standing objection to Mr. Hillsamer's being able to speak for what the Park Service did.

THE COURT: He's talking about records of his own agency. You can cross-examine on that. [218]

THE COURT: What's the date of C-1, Mr. Lionel?

MR. LIONEL: The date of C-1 is October 14, 1969.

Q As a result of those objections from the Park Service, was area within one mile from Devil's Hole left omitted from this exchange?

A That's correct. It was withheld from disposal classification.

Q And, as a matter of fact, the original request for the exchange made included the land which was contiguous to the Devil's Hole area; is that correct?

A I believe that is correct, sir.

Q Would your records reflect that?

A Yes.

Q Would you please check?

A (Witness examining records.) Devil's Hole is in Section 36 of Township 17 South, Range 50 East; is that correct?

Q That's correct.

A The selection in this particular case does not show a selection that near to Devil's Hole. However, as I mentioned earlier, there were eight selections, and I'd have to refer to a file that you did not ask me to bring, Mr. Lionel, because these are consolidations of the "8" and the "2". [219] (Witness examining document.)

Q (By Mr. Lionel) Mr. Hillsamer, would it help you any if I referred you to a notice of classification which apparently has a date of May 6, 1968, and which refers to the protest by the National Park Service?

A The notice of classification quite likely reflected adjustments made after the Park Service protest had been considered and culminated.

You asked if the original selection included lands within a mile of Devil's Hole.

Q Well, what I'm trying to find out is, whether as a result of a protest made by the National Park Service, land within one mile of Devil's Hole was deleted from the classification so that it could not be included within the exchange?

A That is correct sir.

Q That is correct?

A Yes, sir.

Q In other words, it was originally within the area which Spring Meadows, Inc. sought to have exchanged for land in Humboldt County but because of a specific protest made by National Park Service, land within one

mile of Devil's Hole was excluded or removed from the classification and therefore not included within the exchange?

A That's correct, sir. [220]

Q (By Mr. Lionel) Now, at the time the exchange was made, was it required under federal statutes that there be appraisals of the lands being exchanged by both parties?

MR. GERMERAAD: First of all, I'd want to object, whether the witness is competent to answer the question either by training or experience. So far as I know he is not an attorney, and I wonder whether he's capable of telling us the answer to a legal question.

So I would object to the question, your Honor.

THE COURT: He's the Chief of Lands and Minerals of the Bureau of Land Management.

I assume these matters take place in the routine duties in your office; is that right, sir?

THE WITNESS: Yes, sir.

THE COURT: Objection overruled.

Q (By Mr. Lionel) Do you remember my question?

A The answer to your question is "Yes."

Q In other words, your appraisals were made of land in Humboldt County which the Government received as a result of this exchange and appraisal made of the Government land was here in Ash Meadows area which the Spring Meadows would receive; is that correct?

A That's correct, sir.

Q And would your file reflect whether in making the appraisal of the Government land which was being exchanged, it [221] included the fact that they could drill wells on that land?

A The appraisal report—

THE COURT: Are you talking about Humboldt County now?

MR. LIONEL No, I'm talking about the land here, your Honor, which the Government had, and which was exchanged, and which was included in the patent.

A The appraisal report did discuss the pros and cons of availability of water upon the value of the real estate.

Q And the ability to get well permits to drill wells on the land which the Government was going to exchange and transfer to the Spring Meadows, Inc.?

A The appraisal report—this is my recollection, sir—the appraisal report is not a part of the file here today because it was taken therefrom two or three weeks ago and made available to our sister agency in another matter.

Q Do you know what sister agency it was?

A Yes; the Bureau of Sports Fisheries and Wildlife Game in Portland. And they have an appraisal problem unrelated to this. And asked that they be given the appraisal report from the closed file for use in another matter.

Q Now, is it a fair statement to say that during the entire course of your dealings here with Mr. McDonald, with Mr. Brooks—was it Hochman?— [222]

A Hochmuth.

Q (By Mr. Lionel) —Hochmuth, and Mildred Johnson, who was representing Spring Meadows, Inc., that at all times you were fully informed that this land was to be used for agricultural purposes, not including livestock, and perhaps to build some homes on?

A This is what the applicants represented, these people represented to us.

Q Is it a fair statement to say that all the agencies that were involved, pursuant to the procedures of the Bureau of Land Management, were aware that this was the situation?

A I don't know, sir.

Q Do you have any reason to believe otherwise?

A No, sir.

Q What is the Las Vegas District Advisory Board?

A It is a group of elected livestock men and representatives of other interests, including wildlife, and that advisory board position is appointive, which advises the district manager in matters pertaining to management of the public domain.

Q And was the Las Vegas District Advisory Board advised of the purposes of this proposed exchange?

A They were advised of the pendency of the application.

Q And the reason for it? [223]

A I don't know what you mean by "the reason for it."

Q (By Mr. Lionel) Well, the fact that the purpose of the exchange was so that Spring Meadows would acquire this land and use it for agricultural and livestock purposes?

A I don't know as to what extent they were made specifically aware of the expressed intent of the applicant.

Q I see. Do you know whether or not this land now is being used for any purpose except as represented to you to be the purposes for the exchange and the intent for which it was to be used?

A I don't know what it's being used for, sir, because I haven't been there.

MR. LIONEL: I see. I have nothing further of the witness.

THE COURT: Cross-examination.

CROSS-EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff:

Q Mr. Hillsamer, when were you subpoenaed?

A Thursday, last.

Q Were you also given a subpoena duces tecum?

A Yes, sir.

Q Mr. Lionel asked some questions about the reasons that certain lands were withdrawn, and you gave an opinion [224] as to the reasons for it. And I believe you said that the person who made the decision would be the Secretary; this is the Secretary of the Interior?

A Yes, sir.

Q (By Mr. Germeraad) Have you ever talked to the Secretary of the Interior as to what his reasons to take certain action?

A No. I am aware of certain information, certainly not all given to the Secretary.

Q These records which you brought along today, are you a custodian of these records?

A I am, while they're in my possession. I am not ordinarily the custodian of the records in our organization. I have access to them.

Q You have access. But you're not the custodian?

A I'm not the official custodian of land office records.

Q And you do not maintain these records; is that correct? I mean, are you responsible for the compilation of bringing all these papers together?

A I am responsible for the compilation— [225]

* * *

Q (By Mr. Germeraad) So are you in charge of compiling these records?

A I am in charge of the unit that prepares portions of these records.

Q Thank you. Mr. Hillsamer, have I ever met you before?

A I don't think so, sir.

Q I don't think so either.

MR. GERMERAAD: I would, your Honor, make a motion to strike the testimony as it relates to what the records may or may not contain, since Mr. Hillsamer is not the custodian of these records.

I realize he may know portions of these records, but I have no idea how much, and this has not certainly been brought out. So I would make a motion to strike his testimony.

THE COURT: Motion is denied.

MR. GERMERAAD: I would make a request, your Honor, that since I was not advised of the subpoena or subpoena duces tecum, I had never met or know about the situation, that I at least be allowed to continue cross-examination on Wednesday. I'm not sure that I will have [226] any further questions. But if it becomes necessary, I would like to have that privilege, your Honor.

THE COURT: You're not prepared to go forward now?

MR. GERMERAAD: What, your Honor?

THE COURT: You're not prepared to cross-examine now?

MR. GERMERAAD: I'm not prepared to continue my cross-examination at this time, your Honor.

THE COURT: I think your request is a reasonable one.

MR. LIONEL: Except this, your Honor. I told counsel on the telephone at least two weeks ago that I would give him advance notice, and I told him what my answer would be, and pointed out that we would have an affirmative defense in our answer, which we put in, that we had gotten this land from the Government for specific purposes, namely, for the agricultural and livestock uses, and that we were claiming an estoppel against the Government who set up the claim that they were making in this particular case.

As a matter of fact, when I asked Mr. Hillsamer when he pulled the records, I had assumed that the Department of Justice or someone in the Interior had pulled them for that purpose. [227]

MR. GERMERAAD: But you know now, of course, that that is not the case; isn't that correct?

THE COURT: In view of the motion to strike let me make certain I'm clear on this:

BY THE COURT:

Q Mr. Hillsamer, you were the official of the Bureau of Land Management that handled this exchange yourself?

A Only portions of it, sir. The paperwork processing; yes, sir. The decision to dispose or retain the land, these are not committed to me.

Q And who would make that decision?

A The initial decision is made by the—

Q District Director or—?

A —by the district manager here in Las Vegas; and the final decision as to the lands not disposed of was made by the Secretary of the Interior.

MR. GERMERAAD: I have another question—

THE COURT: Just a moment.

Q Insofar as the work done in Nevada, though, the file was on your desk, so to speak?

A Many times, sir.

THE COURT: All right.

Well, I think that in view of the surprise that Government counsel has evidenced you'll have to return Wednesday. I appreciate the inconvenience. [228]

Q (By Mr. Germeraad) I have one question now that I think I can ask, and that is: Who initiated the request for the exchange?

A The proponents, Spring Meadows, Inc. [229]

* * *

THOMAS MILTON HUMPHREY, JR.

(called as a witness by the defendants, being first duly sworn, testified as follows:) [230]

* * *

DIRECT EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Where do you reside, Mr. Humphrey?

A 1501 Flag Circle, here in Las Vegas.

Q And by whom are you employed?

A The Atomic Energy Commission.

Q And what's your occupation or profession?

A I'm a geologist.

Q Are you in charge—are you a hydrologist?

A I'm Chief of the Geology-Hydrology Branch. That makes me a hydrogeologist.

Q The Atomic Energy Commission here in Nevada?

A Yes.

Q And you're here pursuant to subpoena?

A Yes.

Q You never talked to me or anyone from my office before?

A No.

Q You don't even know who I am?

A That's right.

Q Have you talked to the Government about your testimony here today? [231]

A Not to any real length. I have mentioned that I made a dive in Devil's Hole.

Q (By Mr. Lionel) To whom did you mention that?

A To the opposing lawyer.

Q When did you tell him that?

A Oh, a phone conversation, probably—was it Friday?

Q All right. You haven't talked to him since Friday?

A I said "Hello" to him Monday.

Q Okay. Were you here in Court on Monday?

A Yes.

Q And observed the proceedings?

A Yes.

Q And listened to the witnesses?

A Yes.

Q Now, did you dive into Devil's Hole sometime last week?

A Yes.

Q On what day?

A The 27th.

Q Just on the 27th?

A Of June; yes.

Q And you were there with Mr. Peter J. Mehringer and Mr. C. Vance Haynes, Jr.?

A Yes. [232]

Q (By Mr. Lionel) And the three of you dove down?

A Not together. We may have been in the pool at the same time, but they pursued their observations and I pursued mine.

Q What were your observations?

A It's a beautiful spring to dive in. I saw nothing that would reflect on lowering in the water level of the spring during the dive.

Q What was your purpose in being there?

A I received a call from Dr. Dudley, and he asked me to dive in the hole and observe any geological results that could have been caused by a lowering at some time in the past of the water level in the spring.

Q When did you talk to Dr. Dudley?

A Several weeks ago. I really don't have the exact date.

Q Do you know Dr. Dudley?

A Yes.

Q I see. Were you present at the time observations were made with respect to whether or not there were higher water stands in Devil's Hole?

A Higher stands?

Q Yes.

A I made this observation on my own. I don't believe I was there when others were making this observation. [233]

Q (By Mr. Lionel) When did you make those observations?

A On the 27th as well as several years ago when I first saw Devil's Hole.

Q And what did you observe with respect to whether or not there were higher water stands in Devil's Hole?

A I noted deposition of what I took to be calcium carbonate quite a bit higher than the water level, and I guess what was referred to as bathtub rings at a previous session.

Q Have you seen a report of the Desert Research Institute prepared by Dr. Mehringer and Dr. Haynes?

A I have not.

Q I see. Did you notice any ledges below the water level in Devil's Hole?

A I noted some very minor ledges that I took to be the result of fracture.

Q Well, I didn't ask you that.

A I'm sorry.

Q Now, you may work for the Government, but you don't represent the Government now. So I'm asking you if you observed ledges below the water level?

A Yes.

Q Was there more than one?

A There was a number of minor, not elongated, ledges. [234]

Q (By Mr. Lionel) But you did observe ledges?

A Uh-huh; yes.

Q Numerous ledges?

A I would not say numerous; I would say two or three perhaps.

Q Well, you were down there what day?

A The 27th.

Q Did you make any notes?

A No.

Q No notes of any kind?

A No.

A It's difficult to write under water.

Q Well, don't you make notes when you get out and get above the water?

A If I were doing a geological research effort I would have.

Q All right. Now, you say there could have been more than three ledges that you observed there?

A Yes.

Q At what depth?

A At varying depths.

Q Such as—?

A I did not have a depth meter.

Q At approximately how many feet below the level of the water?

A Greater than ten feet. [235]

Q (By Mr. Lionel) What?

A At a greater depth than ten feet.

Q None less than ten feet?

A None that I observed.

Q Did you observe a large ledge about twenty feet below the surface?

A I observed a shelf.

Q A shelf?

A Right.

Q Something like the shelf that the pupfish now live on around water level?

A Yes.

Q And how large was this shelf?

A I would say it was approximately the same size as the one on the surface.

Q All right. But you don't know how far down it was?

A I looked at the depth gauge on my diving partner, and it was approximately fifteen feet below the surface.

Q Yes. Did you notice any algae on it?

A No.

Q Did you notice any algae on any ledges below the water surface?

A I did notice some dead or black-colored gobs of algae that I felt had fallen in from the surface.

Q You didn't observe any algae growing any place [236] underneath the surface; is that what you're saying, Mr. Humphrey?

A Below the—

Q Below the surface of the water?

A Below the present shelf.

Q Below the present shelf?

A No, I didn't.

Q Is it possible there were some that you had forgotten about it?

A No, not that I had forgotten about it. Perhaps I didn't recognize it, being I'm a geologist.

Q Were you looking for algae?

A I was looking for anything below the surface that was there; not specifically algae.

Q That was there, or that would indicate a lower water stand?

A That was the—no, I was not looking for any evidence to point out a lower or higher water level. I was looking simply for any evidence that would suggest anything geologically. I wasn't really looking for anything specific.

Q Now, when you got out of that Devil's Hole on that day, did you call Dr. Dudley?

A No.

Q Did you call anyone with respect to this case?

A No. [237]

Q (By Mr. Lionel) You did nothing until you received my subpoena?

A That's right.

Q You didn't call the Government before that?

A No.

Q I see. Did Dr. Dudley ask you to tell him what you saw under there?

A No, I don't believe so.

Q You knew the report was being prepared for the Desert Research Institute, didn't you?

A I was not positive, but I presumed one would be prepared.

Q Did you make any attempt to get a copy of that report?

A I asked Dr. Maxey if such a copy were available. I expressed an interest in it.

Q When did you ask Dr. Maxey that question?

A Oh, let's see, that must have been Monday.

Q What did he tell you?

A He didn't know that such a report was being prepared.

Q Have you since seen a copy of the report?

A No.

Q Did you have the occasion yourself to look at, say, any place within two feet of the water level to see [238] whether there had been a low water stand?

A I observed the sides of the spring from the water level down to about 65 feet.

Q (By Mr. Lionel) Did you pay any particular attention to the first two feet below the water level?

A No more attention than I devoted to the other depths.

Q I see. Isn't it true that if you had these calcium carbonate deposits that after awhile, if the water becomes higher, that these deposits will disappear?

A Ordinarily this may be the case, but I don't believe it would be the case in Devil's Hole because of the—

Q I didn't ask you if you don't believe.

A I'm sorry.

Q Did you discuss with Mr. Mehringer or Mr. Haynes any of their findings?

A Very superficially; and at the time of our discussion, they had observed nothing more than I had observed.

Q I didn't ask you that. Now, please, Mr. Humphrey, I'm going to ask the Court to admonish the witness, your Honor, to answer the questions.

THE COURT: Try to answer the questions.

THE WITNESS: Surely; I'll be pleased to.

Q (By Mr. Lionel) Who did you discuss it with? [239]

A With both of the gentlemen that you mentioned.

Q (By Mr. Lionel) At what point?

A Following a dive, we were sitting in Devil's Hole above the water.

Q Do you know how many days they dove in the water there?

A I understood they dove on the 8th as well as the 7th—28th as well as the 27th.

Q I see. Now, this ledge you say was about fifteen feet below the surface of the water, you say that was a single shelf, ledge or shelf, the same kind of shelf as the Devil's Hole pupfish, as there is around the surface; isn't that correct?

A It was similar.

Q In what respect was it different?

A It had a good deal of rock rubble that had fallen from above, I presume.

Q Except for the rock rubble, what was the difference?

A Lack of algae, I presume.

Q Lack of algae. That was the only difference?

A Yes.

Q Do you know where the algae comes from?

A I'm not sure I understand your question.

Q Where does algae come from?

A Sunlight enhances its growth; I understand this. [240]

Q (By Mr. Lionel) Enhances its growth?

A Yes.

Q Is that correct? Does algae grow under water?

A Yes.

* * *

CROSS-EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff.

Q You were asked by Mr. Lionel if you had observed some small ledges beneath the surface of the water.

What size were the, not the ledge or shelf which was 15 to 20 feet below the water, but the smaller ones which you did mention, could you describe what size, shape, and what they looked like?

A Yes, I'd be very pleased to. They may have stood out from the fault face not more than five or six inches, and they would be no more than perhaps twelve inches in length. They represented to me— [241]

* * *

Q (By Mr. Germeraad) Five or six inches wide, and maybe twelve inches long. Then this would not even be the same size as the shelf above the water then?

A I think we're interchanging shelf and—

Q Ledge?

A —ledge. Perhaps if I could describe these things a little bit?

Q Please do.

A It appeared to me that they were the result of the major faulting and were minor fractures associated with that faulting, and represented simply just the way the rock breaks.

Q If this was a fracture, as you describe, would this indicate that this would be evidence of a previous lower water level in Devil's Hole?

A I did not consider it as such.

Q A shelf then as opposed to a ledge, you said, was approximately 15 to 20 feet below?

A Yes.

MR. LIONEL: Well, if your Honor please, the witness said it was 15 feet.

MR. GERMERAAD: At an earlier date he also said it was 20. I believe I can ask him. [242]

THE COURT: Cross-examination.

A I would settle for approximately 15 feet.

Q (By Mr. Germeraad) Did this slope at an angle? Was it rather horizontal?

A There was a gentle slope toward the deeper part of the spring.

Q You were also asked whether or not calcium carbonate deposits of bathtub ring effect would disappear if they were below the surface, and you were going to continue a response.

Would you please give that to the Court now?

A Yes. In water as saturated with calcium carbonate as this spring water is, they would have very little effect on the calcium carbonate deposit under water.

BY THE COURT:

Q These markings or rings would not disappear over a period of time?

A They would not, they would not dissolve in a supersaturated or saturated solution.

* * *

REDIRECT EXAMINATION

BY MR. LIONEL: [243]

Q (By Mr. Lionel) Did you observe a shelf partly covered by rock fall on the northwest wall at the junction of the rock fall in the center of the hole, which was exposed for approximately two feet, and is about a foot wide and twenty-three inches below the present water surface?

And I represent to you that I'm reading from a report to the Desert Research Institute prepared by Doctors Mehringer and Haynes.

A Is this the major shelf that we're talking about?

Q No. I'm talking about one twenty-three inches below the present water surface?

A No, I did not observe this.

* * *

Q (By Mr. Lionel) Fine. Did you observe a three-inch wide smooth ledge at about fourteen inches below the [244] water surface which was exposed for about a foot?

A No, I did not.

Q (By Mr. Lionel) Did you observe any smooth ledges?

A The ledges that I have previously described, the upper surface of them were relatively smooth.

Q Do you, as a geologist, know why those ledges would be smooth? What would cause them to be smooth?

A I attribute it to the fault movement, to slick water-smooth sides.

Q Could it be the result of there being a water level which was approximately the level of that shelf which would by constantly lapping it cause it to become smooth?

A Could I answer this by saying more than yes or no?

Q Surely. I'm asking you whether that could be one of the reasons for it?

A The action of water smooths rock. I noted no smoothing on the present ledge that the pupfish are living on, however.

Q Well, I didn't ask that. I got the answer to the other question.

Now, let me ask you one other thing. I believe Dr. Dudley testified here on Monday that calcium carbonate deposits could be removed because water would remove such [245] solutions.

Do you disagree with Dr. Dudley if he testified to that effect?

A We're not speaking specifically of any—

Q (By Mr. Lionel) I'm talking about calcium carbonate deposits.

MR. GERMERAAD: Your Honor, I would make an objection that Mr. Lionel is misconstruing the testimony of Dr. Dudley.

MR. LIONEL: The record would show it, your Honor.

Q I'm asking the witness whether he disagrees with Dr. Dudley?

A No, I do not disagree with Dr. Dudley.

Q In that respect, do you disagree?

A Calcium carbonate is soluble to an extent in water.

Q And if there were calcium carbonate rings below the present level of the water in Devil's Hole, and then the water, as a result of a high present water stand, could erase that, couldn't it?

A Not specifically in Devil's Hole because of the calcium carbonate content of the water itself.

Q So what you're saying is, that if there were calcium carbonate rings, that they would not become, could [246] not dissolve because of the calcium carbonate content of the water; is that your statement?

A Yes.

* * *

BY THE COURT:

Q Mr. Humphrey, what caused you to go over to Devil's Hole and make this dive?

A Dr. Dudley asked me to dive in his place. I'm a certified diver and geologist.

Q And he told you what?

A He did not tell me to look for anything specifically.

* * *

GRANT ALLAN ENGSTROM

(called as a witness by the defendants, being first duly sworn, testified as follows:) [247]

* * *

DIRECT EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Where do you live, Mr. Engstrom?

A Pardon?

Q Where do you live?

A At 13405 Mahogany Drive, Reno, Nevada.

Q What's your occupation or profession?

A Consulting engineer.

Q As consulting engineer, have your duties frequently had to do with respect to water and the sinking of wells and locations and water permits and things like that?

A Yes. I'm a water rights surveyor of the State of Nevada.

Q And for how long past have you been a water rights surveyor in the State of Nevada?

A Approximately two, two and a half years now.

Q How long?

A Two, two and a half years now.

Q And are you familiar with the Ash Meadows region?

A Yes, sir.

Q And particularly where the Spring Meadows Ranch is located?

A Yes, sir.

Q And have you performed work for their ranch, or more specifically, for Mr. and Mrs. Cappaert who are the [248] defendants in this action?

A Yes.

THE CLERK: This is Defendants' I.

(Defendants' Exhibit I, being map with overlay, is marked for identification at this time.)

Q (By Mr. Lionel) I show you Defendants' Exhibit I, which is the exhibit the Clerk is present putting up on the easel, and ask you if you prepared that?

A I did.

Q Would you tell the Court generally what that exhibit represents, in general terms?

A The base map is a colored map indicating property ownership in the vicinity of the Cappaert's property at Ash Meadows.

Q Could you tell the Court what these red squares are?

A The plastic overlay with the red squares on it indicates those sections that were delineated in the plaintiff's action.

MR. LIONEL: May the record reflect that Exhibit I consists of a map plus an overlay fitted directly over that map.

Q Now, in the center of each of those squares there is a number. What does that number represent?

A The number refers to the sectional subdivision of [249] land.

Q (By Mr. Lionel) I notice that some of these have a line drawn through them, and I think there's a line drawn through 26, 31, 32, 35, 24 and 19. Would you tell the Court what those represent?

A The overlay was prepared prior to the amendment that was filed with the Court on Monday. The red line through the number indicates those sections which were deleted in the amendment.

Q I notice that the number appearing in each of the squares is in black, except for the numbers "31" and "32" in the upper center on the right side.

What's the reason for those being in red?

A Those were added in the amendment on Monday.

Q Now, certain of the coloring here is in blue. Would you please explain to the Court what that represents?

A The blue color on the base map represents other privately owned lands in the vicinity of Ash Meadows, and is so indicated by the legend in the lower left-hand corner.

Q When you say "other privately-held lands," you mean lands which are not owned by the defendants Cappaert in this action?

A Correct.

Q Now, what is the land which is shown in green?

A The green is the fee lands that were held by the [250] Cappaerts and their precedessor owners in the area.

Q (By Mr. Lionel) Who were the original predecessor owners of the lands shown in green on Exhibit I?

A A number of individuals, including the State of Nevada.

Q And did you check the records to determine when the State of Nevada became the predecessor or owner of the lands shown in green on Exhibit I?

A I did.

Q And what did you do?

A I obtained copies of the State Selection List from the Bureau of Land Management offices at the State Headquarters in Reno.

Q And we have those here in Court; is that correct?

A That's correct.

Q Now, what is the land which is shown in yellow on Exhibit I, the land with yellow and a cross-hatch?

A The yellow lands with the cross-hatch represent those lands that were acquired by the patents from the Federal Government in 1969.

Q And we have that patent here in Court today, don't we?

A That is correct.

Q Now, there is also land here which is shown—

BY THE COURT: [251]

Q Excuse me, Mr. Lionel, I want to make sure I understand you.

Are any of the areas shown in green, or were they, acquired by patent from the United States directly?

A That is correct.

Q So the yellow is just to distinguish other lands from those acquired in 1969?

A The yellow distinguishes the land acquired by patent directly by the Cappaerts.

Q I don't understand the significance.

MR. LIONEL: Well, your Honor, we will show later on: The land that is in green, your Honor, was obtained by the State of Nevada from the Federal Government pursuant to a Federal Statute during the last century, and that the present defendants are successors in interest of that land.

The land which is in yellow was obtained by the defendants Cappaert in 1969 pursuant to the trade that Mr. Hillsamer testified concerning.

THE COURT: Oh, I see. All right.

You say the green area goes back that long?

MR. LIONEL: Last century, your Honor.

THE WITNESS: Nearly all of it.

BY THE COURT:

Q Some of it was a matter of state selection and then patents issued— [252]

A By the State.

Q —(By the Court) to the defendants or defendants' predecessors to the State of Nevada?

A Correct. There are a few patents directly from the Federal Government to predecessor owners.

THE COURT: Thank you. I understand.

MR. LIONEL: I stand corrected on that then.

Q What is the land shown in brown on I, the light brown color?

A The light brown color represents federal lands as does the darker brown, which is a hatch. The darker brown was what was proposed for this exchange.

Q In other words, the darker brown was part of what was proposed to be obtained as a result of an exchange between the Cappaerts and the United States, which did not go through?

A That is correct.

Q And the part which is yellow in cross-hatch was the part that was in fact exchanged?

A That is correct.

MR. LIONEL: At this time, your Honor, we'll offer I.

THE COURT: Mr. Lionel, the description you've just given of the various colors, does that appear on the map itself? [253]

MR. LIONEL: Yes, your Honor.

THE WITNESS: The legend is in the lower left corner.

THE COURT: All right. I can't see that.

MR. LIONEL: All there is on the overlay, if your Honor please, are the red squares with the numbers superimposed.

THE COURT: Do you have any questions on voir dire?

MR. GERMERAAD: Yes, I have a question.

VOIR DIRE EXAMINATION

BY MR. GERMERAAD:

Q You say the yellow cross-hatch was acquired by patent from the Government in 1969; is that correct?

A Right.

Q And what was the light brown?

A The light brown are other federal lands.

Q Federal lands. Then these other federal lands are not then, have not then acquired by the Cappaerts; is that correct?

A That is correct. They're still in the title of the Federal Government.

THE COURT: That's public domain.

Q (By the Court) But the darker brown is part of the original application for exchange; is that right? [254]

A Yes. It still, however, remains in the public domain.

THE COURT: Any objection?

MR. GERMERAAD: As long as the underlying documents on which this is based are introduced, I have no objection.

THE COURT: Very well, it will be received.

(Defendants' Exhibit I, having been previously marked for identification, is received in evidence.)

MR. GERMERAAD: He said he checked, and I would imagine that Mr. Lionel was going to have him introduce them.

MR. LIONEL: We intend to subsequently but not right now.

MR. GERMERAAD: Well, then, I have no objection, subject to those being supplied.

Q (By Mr. Lionel) Now, right here north of what is shown as "1" with the line through it, which was

one of the sections that had apparently been deleted by the amendment to the amended complaint, there is a dot and the words "Devil's Hole"; is that where Devil's Hole is?

A That's the location of the Monument; yes, sir.

Q Okay. Now, in this section, which has the number "7" superimposed on the overlay, we see certain things which have numbers, and I'm asking you if it's not true that [255] the following wells were here on the green fee portion in Section 7: Well No. 4, Well No. 2, Well No. 3, and I believe Well No. 1; is that correct?

A That is correct.

Q (By Mr. Lionel) Wells Numbers 16 and 17 are superimposed by No. 8 on the overlay, and those wells are in the land which was obtained in 1969 as a result of a trade with the Government; is that correct?

A That is true.

Q And Well No. 5 is where? Well, No. 5 is here also in that Section 7, and that is on land which was obtained in the exchange in 1969 from the Federal Government?

A Correct.

Q And so to summarize that, Wells Numbers 1, 2, 3 and 4 are in this area here in Section (indicating); and they are on lands which were fee lands previously obtained?

A True; correct.

Q And Wells Numbers 5, 16 and 17 are on lands which were located, on land which was obtained in 1969?

THE COURT: The previous testimony about leased lands, is leased land indicated on that chart?

THE WITNESS: No.

MR. LIONEL: Not at all, your Honor.

THE COURT: Not at all? [256]

THE WITNESS: No.

THE COURT: And I believe your previous testimony was that it was all developed on lands owned by the defendants?

MR. LIONEL: That's correct, your Honor.

THE COURT: Does that include what you call 16 and 17?

MR. LIONEL: That's correct, your Honor?

THE WITNESS: It also includes Well 6.

MR. LIONEL: Oh, that's right. I'm sorry. I forgot Well 6.

THE COURT: Five and six then?

MR. LIONEL: Yes, your Honor.

THE COURT: All right.

Q (By Mr. Lionel) Well, Wells 5, 6, 16 and 17 are all on lands which were obtained in the 1969 trade?

A No. 6 is on fee land.

Q I'm sorry, 6 is on fee land?

A Yes, sir.

Q This overlay isn't correct. 6 is on fee land, your Honor.

THE COURT: Section 3, isn't it?

MR. LIONEL: What's shown on 3 here, your Honor. (Indicating.)

THE WITNESS: Yes. [257]

Q (By Mr. Lionel) Now, on the fee lands on the map there are certain dates. Did you insert those dates on the map?

A I did.

Q And what do those dates represent?

A Those dates represent point in time at which title was transferred from the Federal Government to another entity.

MR. GERMERAAD: Excuse me, do you have an extra copy of this map?

MR. LIONEL: You may have that; yes.

(Defendants' Exhibit J, being aerial photographs, is marked for identification at this time.)

Q (By Mr. Lionel) Mr. Engstrom, as part of your duties with the defendants, did you do ground surveying?

A That is correct.

Q And Exhibit J, which consists of two sheets, do you know what they are?

A They represent reproduction of some aerial photography of the ranch properties.

Q And as I look at it—well, there are certain—superimposed on this exhibit are certain wordings, certain things marked in green and some marked in what might be a light orange—who did that?

A I did. [258]

Q (By Mr. Lionel) What does the green represent?

A The green represents cultivated lands.

Q This lower right-hand corner we're talking about is the southeastern portion; isn't that correct?

A That is correct.

Q And you say everything in green represents cultivated lands?

A Yes.

Q And that would be cultivated lands on the ranch owned by the defendants here?

A Yes; true.

Q And what does each box on here represent?

A That represents sectional subdivision of the lands.

Q When you say "sectional subdivision," how much are you talking about?

A The sectional subdivision refers to the one mile rectangular subdivision that breaks down by township, range and section.

Q Now, down here I notice in the southeastern portion, in the lower right-hand corner, you have some area—here we have two half sections in brown, which is Sections 12 and 7. (Indicating.)

What does that represent?

A That represents lands that were leveled prior [259] to the actual planting for cultivation.

Q (By Mr. Lionel) And do you know why they had not been cultivated?

A Because Well 5 has not been pumped since last September.

Q Since the commencement of this lawsuit; is that correct?

A That's correct.

Q Now, how about the land down here which is shown as Section 18, a portion here in Section 18? (Indicating.)

A The land in brown is also leveled—

THE COURT: What section, Mr. Lionel?

MR. LIONEL: 18 here in the lower right-hand corner, your Honor.

THE COURT: All right. I see.

A (Continuing) —that land is also leveled preparatory to cultivation.

Q (By Mr. Lionel) Now, where is Devil's Hole on this map? Would you come down and show his Honor, please?

A Surely. Devil's Hole is located in this position. (Indicating.) It's in Section 36. There's a red notation on the map that so indicates.

MR. LIONEL: May the record show, your Honor, that the witness pointed to a place here in Section 36 which is more or less on the western portion, generally [260] in the western portion on the right-hand side of the map.

Q (By Mr. Lionel) All right. That will be fine.

BY THE COURT:

Q Is there an area on the map pointing north? I don't see it. I assume the top is north?

A The top is north, that's true.

Q (By Mr. Lionel) Even though it doesn't show on the map here, Mr. Engstrom, could you show the Court the fee lands where Wells 1, 2, 3 and 4 are located?

A I would be the green in the right-hand edge of the lower portion along the strip of the green.

Q Would you come down here to the map and point that out to his Honor?

A Well 1 is located on fee lands at this point; Well 3 at this point; Well 2 in the same point as Well 4, in this location; Well 5 is on the level land at this point. Well 6 is at this location. (Indicating.)

They're all noted in red with a number signifying the number of the well. And then some five digit numbers which indicate the State of Nevada water permit number that applies to that point of diversion.

Q Okay. Mr. Engstrom, are you familiar with all the well permits with respect to this land?

A I am.

Q And these wells which we are talking about, 1, [261] 2, 3, 4, 5, 6, 16 and 17 have all been properly granted permits by the State Engineer?

A Wells 1, 2, 3, 4, 5, 6 and 17 have; 16 is still pending.

Q (By Mr. Lionel) 16 is still pending?

A That's correct.

Q 16 is not being used, is it?

A That's right.

Q And, in fact, hasn't been used except for the original test?

A That is true.

Q I show you what has been marked as Defendants' proposed Exhibits G-1 through G-26, inclusive, and ask you if you will now state what they are?

A Yes.

(Defendants' Exhibits G-1 thru G-26, inclusive, being State Selection List No. 8, are marked for identification at this time.)

Q What are they?

A They represent list No. 8 of the State Selection.

THE COURT: Represent what, sir?

THE WITNESS: Represent List No. 8 of the State Selection.

MR. GERMERAAD: Would it be okay, your Honor, if I just looked over his shoulder? [262]

THE COURT: Certainly.

Q (By Mr. Lionel) What do you mean by "State Selection"?

A They represent lands that were obtained by selection by the State of Nevada approximately March 12, 1890.

Q Obtained from whom?

A Federal Government.

Q Now, did you, in preparing Defendants' Exhibit I, use these State Selection instruments for the puropose of marking those properties on there, those fee properties?

A Which, the first one?

Q Yes, sir.

A Yes, sir.

MR. LIONEL: We're going to offer, your Honor, G-1 through G-26, inclusive.

THE COURT: Why don't we receive them subject to a motion to strike and you can check them later?

MR. GERMERAAD: That will be fine.

(Defendants' Exhibits G-1 to G-26, inclusive, having been previously marked for identification, are received in evidence.)

A I can point out the lands on each of those lists that are of specific reference there.

MR. LIONEL: Well, they'll have an opportunity [263] to do that.

A Okay.

THE COURT: These are Exhibits G-1 through 26?

THE CLERK: Yes, your Honor.

THE COURT: Inclusive?

THE CLERK: Yes, your Honor.

THE COURT: They'll be received subject to a motion to strike.

A (Continuing) Each of these lists contain a substantial acreage, and the lists have to be searched in order to locate the parcels we're concerned with.

Q (By Mr. Lionel) Isn't it true, Mr. Engstrom, that you have specifically marked where each of these parcels appear in that exhibit, and these other exhibits?

A That is true.

Q You put, I believe, is it, an orange mark next to it?

cel that is of interest.

THE COURT: This is the total state selection of that date then?

A Yes, there's an orange mark adjacent to the par-

THE WITNESS: That is correct.

THE COURT: You simply indicated those that are pertinent here? [264]

THE WITNESS: That is correct.

(Defendants' Exhibits F1 to F23, inclusive, marked for identification at this time.)

Q (By Mr. Lionel) Now, I show you what has been marked as Defendants' proposed Exhibits F1 to F23, inclusive.

THE COURT: What's that number again? What's that reference?

MR. LIONEL: F1 through 23, inclusive, your Honor.

A That is State Selection List No. 9.

Q And what was the year of those selections?

A It's December 2, 1890.

Q And did you use those in connection with the preparation of Defendants' Exhibit I, in the same fashion as List No. 8?

A Yes, sir.

Q Excluding the marking on those exhibits of the land which is involved here?

A That's correct.

MR. LIONEL: We'll offer, your Honor, Exhibits F1 through F23.

THE COURT: Same ruling.

MR. GERMERAAD: Thank you, your Honor.

(Defendants' Exhibits F1 thru F23, marked for identification as shown above, are received in evidence.) [265]

(Defendants' Exhibits D1 to D11, inclusive, marked for identification at this time.)

Q (By Mr. Lionel) I show you what has been marked for identification as Defendants' D1 to D11, inclusive, and ask you what that is?

THE COURT: I didn't hear you, D1—

MR. LIONEL: —through D11, your Honor.

THE COURT: —through D11?

MR. LIONEL: Yes, your Honor.

A This is State Selection List No. 11.

Q And did you use these in the same fashion as you have the prior exhibits?

A That is correct.

MR. LIONEL: We'll offer that, your Honor.

Q What's the date of that Selection List?

A April 12, 1890.

MR. LIONEL: May that be admitted, your Honor?

THE COURT: Yes, same ruling.

(Defendants' Exhibits D1 to D11, marked for identification as shown above, are received in evidence.)

Q (By Mr. Lionel) I show you what has been marked E1 to E13, inclusive, and ask you what that represents?

A State Selection List No. 10.

(Defendants' Exhibits E1 to E13, inclusive, marked for identification at this time.) [266]

Q (By Mr. Lionel) Was that used by you in the preparation of Defendants' Exhibit I?

A That is correct.

Q And were those state selections of fee land shown on there?

A Yes.

Q And what year was that selection?

A This is March of 1892.

MR. LIONEL: We offer, your Honor, E1 to E13, inclusive.

THE COURT: Same ruling.

(Defendants' Exhibits E1 to E13, inclusive, previously marked for identification, are received in evidence.)

Q (By Mr. Lionel) I show you what has been marked as Defendants' H1 to H6, inclusive, and ask you what that is?

A That's State Selection List No. 13.

(Defendants' Exhibits H1 to H6, inclusive, marked for identification at this time.)

Q Was that used by you in your preparation of Defendants' Exhibit I?

A That is correct.

Q What was the date of that selection by the State of Nevada?

A The date is October of 1892. The dates I've [267] recited are not the date of selection but the date of transmittal to the Governor, which is the date the title generally is considered to have passed.

Q (By Mr. Lionel) Why do you say "generally is considered"?

A Well, the original selection was made a couple of years prior to that.

THE COURT: Let's see, this is H1 through what?

MR. LIONEL: This is H1 through 6, your Honor.

THE COURT: This is State Selection No. 13, you say?

THE WITNESS: True.

THE COURT: It will be received subject to the same motion.

(Defendants' Exhibits H1 to H6, inclusive, previously marked for identification, are received in evidence.)

Q (By Mr. Lionel) I show you what is in evidence as Defendants' C-1, and ask you whether or not that is the patent used in showing the yellow cross-hatch land areas in Exhibit I?

A It is.

Q I show you what has been marked as Defendants' C-2 for identification, and ask you what that is? [268]

A It's a patent from the Federal Government on parcel of land consisting of two sheets covering land in Township 18 South Range 50 East, approximately 240 acres.

Q (By Mr. Lionel) Now, was that part of the land which you show in green as fee lands on Exhibit I?

A Yes, it is.

Q And what's the date of that?

A That's April 4, 1951.

Q I show you what has been marked as Defendants' proposed Exhibit C-3. Would you please state what that is?

THE COURT: What's the date of the patent in C-1, Mr. Lionel?

MR. LIONEL: This here, your Honor, is April 4, 1951.

THE WITNESS: It's the one held by the Clerk.

THE COURT: C-1?

MR. LIONEL: Excuse me, C-1? I'm sorry; that's 1969.

THE COURT: '69?

MR. LIONEL: This is October 14, 1969.

Q What is C-3?

A C-3 is a patent for a parcel of ground from the Federal Government to private ownership. It's dated January 4, 1923.

Q And this was used by you in preparation of the [269] green colored fee lands shown on Exhibit I?

A Yes, sir.

Q (By Mr. Lionel) And, in fact, Exhibit I will show that date, won't it?

A Yes.

Q I show you what has been marked Defendants' proposed Exhibit C-4, ad ask you what that is?

A Another patent for land from the Federal Government to private individual. It's dated December 12, 1916.

THE COURT: 1960?

THE WITNESS: 1916.

THE COURT: '16.

Q (By Mr. Lionel) And this is also shown on Exhibit I as part of the green fee lands, and Exhibit I shows the date of acquisition of this particular patent?

THE COURT: Of the green, did you say?

MR. LIONEL: I beg your pardon?

THE COURT: Of the green?

THE WITNESS: Yes.

MR. LIONEL: Yes.

Q I show you Defendants' proposed C-5. Please state what that is?

A It's another patent from the Federal Government to a private individual. It's dated July 23, 1931. [270]

Q (By Mr. Lionel) And is this shown on Exhibit I in the green portion?

A Yes, sir.

Q And it shows the date of this patent?

A Yes, sir.

THE COURT: Are these in evidence?

MR. LIONEL: No, your Honor. I'm going to offer them at one time.

Q C-6?

THE COURT: What color?

MR. LIONEL: In regard to—

THE COURT: In regard to C-5?

THE WITNESS: It's in green on the property map.

THE COURT: Part of the green; same as the others?

THE WITNESS: Yes.

Q (By Mr. Lionel) What is C-6?

A It's a patent from the Federal Government to a private individual. It's dated November 12, 1926.

Q And is that shown on Exhibit I in the green portion?

A Yes, sir; also contains the date.

Q C-7, what is that?

A It's another patent from the Federal Government [271] and it is dated November 20, 1928.

Q (By Mr. Lionel) And that's shown on Exhibit I in the green portion, and the date is shown on Exhibit I?

A Yes, sir.

Q What is C-8?

A C-8 is a patent from the Federal Government to a private individual. It's dated December 22, 1922.

Q Is that shown on the green portion on Exhibit I?

A Yes, sir.

Q And also has a date on Exhibit I?

A That is correct.

Q C-9?

A Is another patent from the Federal Government to a private individual, dated December 31, 1923.

Q Is that shown on Exhibit I in the green portion?

A Yes, sir.

Q And the date of this patent is shown in that particular place, the particular portion where this land is located?

A It is.

Q C-10?

A Is a patent for land from the Federal Government to a private individual. It's dated September 26, 1922.

Q Is that shown on Exhibit I in the green portion?

A It is. [272]

Q (By Mr. Lionel) And the date of the patent is shown where that land is located on Exhibit I?

A It is.

MR. LIONEL: At this time, if the Court please, we offer as Exhibits what has been marked from C-2 to C-10, inclusive.

THE COURT: We'll receive them subject to the Government's right to move to strike.

(Defendants' Exhibits C-2 to C-10, inclusive, previously marked for identification, are received in evidence.)

Q (By Mr. Lionel) Now, Mr. Engstrom, with respect to the green marked portion on Exhibit I, do the exhibits which have just been marked and introduced in evidence cover everything shown in green with the exception of one small portion?

A That is correct.

Q And is that the portion that I am showing in the lower left-hand corner, or rather, in the furthest southwest corner of Section 3?

A That's correct.

Q And that's a 40-acre piece; is that correct?

A That is true.

Q Is there any reason why you have no documentation with respect to that parcel?

A I was unable to locate such documentation. [273]

MR. LIONEL: Thank you.

THE COURT: In other words, these exhibits are documentation for all the areas in green with the exception of a 40-acre parcel—

THE WITNESS: In the southwest corner of Section 3.

THE COURT: —in the southwest corner of Section 3?

THE WITNESS: Yes.

Q (By Mr. Lionel) When we say "all the parcels" we're talking about all those which are encompassed by the overlay?

A Yes.

MR. LIONEL: We have not done anything about any portions which are not encompassed by the overlay.

THE COURT: I'm not sure I understand.

MR. LIONEL: Well, your Honor—

THE WITNESS: There are outlines on the overlay.

MR. LIONEL: —the overlay covers only those portions where the Government has originally sought to restrain the use of any water. And we haven't gone into any lands outside of that, your Honor. But it covers all of the green portions which were shown within that portion covered by the overlay. [274]

THE COURT: Are all of the green areas on that map, Exhibit I, involved in this litigation?

MR. LIONEL: No. Only those, your Honor, which are within these red squares.

THE COURT: Within the red squares.

MR. LIONEL: As your Honor will recall, the original ones encompass 31 and 32 here, 26 and 35 in 1/24/19, and they amended to take them out and then included new 31 and new 32.

But it covers, the exhibit now offered covered all of the green land within those sections. And everything within the lands where the Government seeks to enjoin defendants from using water.

THE COURT: Just the sections then in which wells are located the Government seeks to—

MR. LIONEL: No, your Honor; no. They haven't limited it to that. The Government's prayer, and what they're seeking in this preliminary injunction proceeding, is to enjoin the use of any pumping in any land within 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 sections of land. They have not even limited it to the present wells.

THE COURT: To the present wells? Okay.

MR. LIONEL: I have nothing further of the witness. [275]

THE COURT: Mr. Germeraad, you may cross-examine.

MR. LIONEL: If your Honor please, at this time I neglected to offer into evidence Exhibit J.

THE COURT: Do you have any objection to the large map?

MR. GERMERAAD: No, your Honor, unless we can discover something later, there is no objection.

THE COURT: It will be received.

(Defendants' Exhibit J. having been previously marked for identification, is rec'd. in evid.)

CROSS-EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff:

Q You mentioned several wells being located on fee lands shown in green. What about Well No. 13, where is that located?

A Well No. 13 is on federal land.

Q You were asked whether you were familiar with all these permits earlier, and these permit numbers are next to—

A They're on the photo map.

Q They're on the photo map?

A Yes, sir.

Q Are you familiar with an affidavit filed by the defendants by Mr. Westergard regarding those numbers, permit numbers? [276]

A I have not seen it; no.

Q (By Mr. Germeraad) Thank you.

MR. GERMERAAD: Do you have a clean copy?

MR. LIONEL: Of what?

MR. GERMERAAD: Of Mr. Westergard's affidavit?

THE COURT: It should be in the file.

MR. LIONEL: You didn't serve a copy.

Q (By Mr. Germeraad) Have you seen that, just generally, without looking at it, just looking at my notes?

A I have not seen it; no.

Q Are you familiar with the well permit numbers for each of those wells?

A Reasonably. I would have to refer to my files. We have 68 or 69 application permits in the area, so that for precise locations I would have to refer to my records.

Q Do you have those with you?

A Yes.

Q Could you refer to your records, and I will ask you questions regarding the permit—maybe you can just come up here to the map?

A All right.

Q And this will verify which permit numbers.

Now, are the permit numbers listed on this map?

A Just on the photo map. I might further explain that the only permit numbers that are indicated on this are those [277] that are currently being used,—

THE COURT REPORTER: Beg pardon?

THE WITNESS: Those that are currently being used by the ranch.

THE COURT: The permits that are being used by the defendants are on this exhibit, what is this number?—

THE WITNESS: Yes.

Q (By Mr. Germeraad) For only those that are presently being used, did you say?

A Yes.

THE COURT: What's the number of this exhibit?

THE CLERK: J, your Honor.

THE COURT: J.

Q (By Mr. Germeraad) Looking at Wells 1 through 6, 16 and 17, is there a permit listed there, Number 25556?

A Yes.

Q And what well is for that?

A 25556 is on an existing permit that is on a hole located in Section 12 in the southeast quarter. It is not presently in production. It is a dry hole.

BY THE COURT:

Q Does it have a number?

A 2555—

Q Not the permit number, the well number? [278]

A No, it has not been assigned a well number.

Q It's not on Government's Exhibit 3, that's why I'm asking.

Q (By Mr. Germeraad) Is there a permit number 25557?

A Yes; yes, sir. That represents—wait a minute, that represents another permit for a well located in Section 28 of Township 17 South Range 50 East. It's in the southeast quarter again. That hole has not yet been drilled.

Q Could you go to Well No. 1 and give me the permit number for that, please?

A Well No. 1 is permit number 25551 and 25560.

Q In whose name are those permits held?

A In Francis L. and Marilyn I. Cappaert.

Q Were these previously listed as in the name of Spring Meadows, Inc.?

A That is correct.

Q Do you have any idea when the change was made?

A From when?

Q From Spring Meadows, Inc. to the Cappaerts?

A The Cappaerts? I'd have to review my files to be certain of that date.

Q Would it have been in 1971 or 1972, 1970?

A It was the latter part of 1970 or early '71. [279]

Q (By Mr. Germeraad) Have you made yourself familiar with the protests filed by the National Park Service with the State Engineer concerning the permits?

A Which permits?

* * *

Q There was a series of permits that were granted on December 16, 1970, that totaled ten permits by the State Engineer. And I believe you testified at the hearing?

A Yes, I did.

THE COURT: December, 1970 did you say?

MR. GERMERAAD: December 16, 1970, your Honor.

Q Are you familiar with the protests filed on each of those permits?

A I haven't specifically reviewed them since that time; no.

Q But you were aware of them?

A Yes.

Q Have you become aware of the protests filed on the applications filed since that date?

A Yes.

Q When were you first aware of the protests filed by the National Park Service or other agency of the Federal [280] Government against the granting of permits by either Spring Meadows, Inc. or the Cappaerts?

A The first series were granted in December, 1970, and I became aware of it approximately October of that year when I was first retained to work for the ranch.

Q (By Mr. Germeraad) In that December hearing were the wells on which these permits were sought already in use?

A Yes.

Q What was the need for getting a permit?

A Generally it was either change of place of use or change of point of diversion.

Q When, if you know, did the drilling begin on Wells 16 and 17?

A That was the early part of this year. I couldn't give you the date.

Q But in 1972?

A Yes.

Q And Wells 16 and 17 then are on the land which you received from the Government in 1969?

A It was included in that land patented to the Cappaerts in 1969.

Q On Defendants' Exhibit J, all that in green is land that is irrigated?

A Yes. [281]

Q (By Mr. Germeraad) On which crops are being grown?

In the section just above Wells 16 and 17, it is not colored in, has that land been leveled, fenced, irrigated?

A No. It has been leveled, and at one time was irrigated; yes, sir.

Q Is that land owned by Spring Meadows or the Cappaerts?

A No, it is not.

Q And who does that land belong to?

A It's still in the public domain.

Q Are you familiar with the permit system that the State uses then to obtain water permits?

A Yes.

Q Do you have a record of the pumping history of each of the wells that Spring Meadows or the Cappaerts have drilled and produced?

A I have from time to time obtained copies of the records of information at the time by the Geological Survey in their studies.

Q But the Cappaerts or Spring Meadows, Inc. have no records of their own as to how much water was pumped?

A The project that the Geological Survey has undertaken has been a joint project, and they were obtaining the measurement data that we need for our purposes. [282]

Q (By Mr. Germeraad) In other words, you are relying on the Geological Survey to tell you how much water you were pumping?

A In total, yes.

Q Under the permit system to certify a beneficial use, do you not have to tell the State or verify to the State how much water you have pumped to perfect your permit?

A You have to tell them the quantity that you are using; yes.

Q If Spring Meadows, Inc. or Cappaerts do not or have not measured how much water they are using, do you know how they expect to perfect any of their permits with the State?

A I have made the necessary measurements on those applications for permits as to which approved beneficial use have been filed for the period I have worked for the ranch.

Q Have there been any perfected to that date?

A There have been.

Q Have any been perfected on the wells which are involved in this litigation, 1 through 6, 16 or 17?

A No.

MR. GERMERAAD: No further questions, your Honor. [283]

REDIRECT EXAMINATION

BY MR. LIONEL:

Q Mr. Engstrom, what is the effect of the non-perfection of permits at this time of those wells?

A They are pending the proof of beneficial use of the water under Nevada's current permit system.

Q Is there anything improper about that?

A Nothing.

Q As a matter of fact, most of the permits for the State are in the same state, aren't they?

A A good number are; yes, sir.

Q Now, you're familiar with the statutes of the State of Nevada with respect to the use or beneficial use of water and the obtaining of those permits, aren't you?

A Reasonably, yes.

Q And are the Cappaerts, with respect to all these wells which we've discussed, in full compliance with that law, as you understand it?

A I believe they are; yes. [284]

* * *

RECROSS-EXAMINATION

BY MR. GERMERAAD:

Q Go to this map please. Looking at Defendants' Exhibit J, and if you'll look at Well No. 1, please, is there a permit 25557 there?

A It is so noted; yes.

Q And if you look at Well No. 2, is there a permit 25562 there?

A Yes.

Q And Well No. 3, 25561?

A That is correct.

Q Well No. 4, 25564?

A Yes.

Q Well No. 5, 25559?

A Yes, sir.

Q And Well No. 17, 26446?

A Yes, sir.

MR. GERMERAAD: I would like to introduce these Exhibits, please.

THE CLERK: Plaintiff's Exhibits numbers 12 through 17, inclusive, are marked for identification.

(Plaintiff's Exhibits 12 through 17, being protests, are marked for identification at this time.) [285]

MR. GERMERAAD: You can take the witness stand.

Q You mentioned at one time that you were aware that protests had been filed by the Government on various well permits.

I asked you to identify permits on Wells 1, 2, 3, 4, 5 and 17.

Plaintiff's Exhibits 12, 13, 14, 15 and 16, would you identify these, please? Just tell the Court what they are.

A They're Xeroxed copies of protests that were filed with the State Engineer's office by a Gerard S. Witucki representing one of the federal agencies.

Q Okay. Did you at any time in your work concerning well permits for either Spring Meadows, Inc. or the Cappaerts—at this time I believe it was Spring Meadows, Inc.—see these permits prior to that hearing at which you testified?

A I know that I reviewed a number of protests. I presume that these are included in them; yes, sir.

MR. GERMERAAD: I would move for the admission of these documents, Plaintiff's Exhibits 12 through 16.

MR. LIONEL: If your Honor please, I'm going to object to them on several grounds; number one, they're not [286] properly authenticated; it's apparently a file copy, which has not been signed at all, or at least the notarization has not been taken; secondly, I don't think it has any relevancy in this proceeding. There were protests filed with respect—before the State Engineer of the State of Nevada—with respect to the applications for permits, and those permits were granted. And if they want judicial relief they could have gone into the Nevada State Courts and there could have sought judicial relief.

I don't know what relevancy the making of protests to those permits has in this proceeding.

MR. GERMERAAD: Your Honor, I will respond to that. Defendants, in their points and authorities, make some mention of estoppel. And in this light I'd like to bring out that at the time the defendants were seeking permits on these wells, they were well aware of the protests of the Federal Government to that.

I believe later on we will make our legal arguments, but this will show that we are certainly not sitting on our rights, your Honor.

THE COURT: You've asked the witness about Exhibits 12 through 16 for identification?

MR. GERMERAAD: Yes, your Honor.

THE COURT: And each one of those relate to a particular well, 1 through 5 and 17? [287]

MR. GERMERAAD: They relate to 1 through 5, your Honor, which was the subject of a hearing at which Mr. Westergard testified on December 16, 1970.

THE COURT: Well, in order to move the hearing along, I'll receive them subject to the objection noted Mr. Lionel.

(Plaintiff's Exhibits 12 thru 16 received in evidence.)

Q (By Mr. Germeraad) Have you also, sir, looked at or seen the protest subsequently filed on Well 17?

A I have.

Q Would the underlying two pages, the top of which is simply a cover letter, be that protest?

A I believe it is; yes.

MR. GERMERAAD: I move for the admission of Plaintiff's Exhibit 17.

MR. LIONEL: Same objection.

THE COURT: Same objection: same ruling.

(Plaintiff's Exhibit 17, previously marked for identification, is received in evidence.)

THE COURT: Mr. Germeraad, do I understand it then that protest No. 12 relates to the application for Well No. 1; 13 to 2; 14 to 3; 15 to 4; and 16 to 5; is that correct?

MR. GERMERAAD: No, your Honor.

THE COURT: Will you make that clear?

MR. GERMERAAD: Somewhat in different order. [288] Protest 25557—

THE COURT: Well, let's refer to it by the exhibit number.

MR. GERMERAAD: Plaintiff's Exhibit 12 relates to Well No. 1.

THE COURT: All right.

MR. GERMERAAD: Plaintiff's Exhibit 13 relates to Well No. 5; Plaintiff's Exhibit 14 relates to Well No. 3; Plaintiff's Exhibit 15 relates to Well No. 2; Plaintiff's Exhibit 16 relates to Well No. 4; and Plaintiff's Exhibit 17 relates to Well 17, your Honor.

THE COURT: Thank you.

Are—these being the Park Service protests you made reference to earlier?

MR. GERMERAAD: Yes, your Honor.

Q In 1970, December 16, when those hearings were held, you previously said that these permits were many times changed in point of diversion, and there was one other reason?

A Place of use.

Q Place of use. You said that they were also presently in use. Were they presently in use at the new places of diversion or places of use when you applied for the permits?

A That I really couldn't say. I was just newly acquainted with the project. [289]

* * *

ARLIE JOHN HILLSAMER

(a witness on behalf of the defendants, having been previously duly and regularly sworn, resumed the witness stand and testified as follows:)

* * *

CROSS-EXAMINATION (Cont'd.)

BY MR. GERMERAAD:

Q Mr. Hillsamer, I'm just going to have a very few questions for you—

THE COURT: Before you begin, I think the record should show that in view of the objection made Monday by Government counsel, that this witness has either expressly or implicitly brought out in his testimony that the questions answered by the witness were based upon records made and kept in the usual [290] course of business by the Bureau of Land Management and relied upon in the day-to-day business of that

agency and are therefore admissible under the Shop Book Rule.

Go ahead, sir.

Q (By Mr. Germeraad) I believe you said Monday that you first began dealings with Spring Meadows, Inc. in approximately 1966; is that correct?

A That's correct.

Q And that some of the individuals you dealt with have been Robert McDonald, Sam Brooks, Harold Hochmuth and Mrs. Mildred Johnson; is that correct?

A That's correct.

Q When they came to see you, what did you do? What did they ask for?

A They asked about the procedures, the procedural requirements, for effecting an exchange of land.

Q And you informed them of those procedures?

A I briefed them on the procedures.

Q At any time did you advise them what property should be offered as a basis for the trade?

A No, I did not. And I did refer them to our district manager here in Las Vegas to discuss this.

Q Okay. Did you handle any of the negotiations involved in this transaction?

A Not negotiations. [291]

Q (By Mr. Germeraad) Okay. Did you at any time make any representation as to the character of the land which they were trying to secure?

MR. LIONEL: Well, your Honor, I'm going to object to that. That calls for a conclusion of the witness.

THE COURT: Well, he's given conclusions heretofore. Overruled.

Your answer is "Yes?"

A I'm not sure—the federal land that they—

Q (By Mr. Germeraad) That they were seeking to get, did you make any representations?

A —were seeking to get, I made no representations as to the character of those lands.

Q At any time did you tell the people from Spring Meadows that if they got that land, they could drill for water on that land?

A No, this is—I did not.

Q Okay. That's fine.

Prior to the spring of 1968 when they began their procedures, what kind of forms did they have to fill out to execute or to begin the process to make an exchange?

A There is a standard form on which are identified the authority for the exchange and the identity of the applicant and the identity of the land applied for. [292]

Q (By Mr. Germeraad) Is there any place on that form that identifies what use the persons applying for the exchange want to make of the land?

A No, there's no provision for this.

Q Was there any requirement that Spring Meadows, the applicant, must tell you what they're going to use the land for?

A No, there's no requirement under this law that they indicate what they want to do with the land.

Q Was there a requirement under the Use Act requiring a notification or publication to various interested parties if the land exchange exceeded a certain size?

A Are you referring, sir, to the classification and Multiple Use Act of 1964?

THE COURT REPORTER: What is that again, sir?

THE WITNESS: The Classification and Multiple Use Act of 1964?

Q Yes, I believe that is—

A Yes; that law and the regulations thereunder require that any disposal action involving more, twenty-five hundred and sixty acres or more of federal land, that the proposed action be published, a notice be published in the Federal Register.

Q In the beginning of the Spring Meadows application did they break up proposals into separate units? [293]

A They did.

Q (By Mr. Germeraad) Did they break up the proposals into units of less than twenty-five hundred and sixty acres?

A Yes, they did.

Q Did you make any decisions involving this trade or exchange, I mean, as to its approval?

A I did not make any decisions as to the approval or disapproval of the exchange.

Q In the process that goes on in this exchange, are there various opportunities for interested parties to make protests of the action?

A There are.

Q Were there protests made to this action?

A Yes.

Q Was one of the protests filed by, I believe, Mr. Grant Sawyer?

A Yes; an attorney representing a client, a rancher in the area.

Q And he opposed this classification or exchange that was being asked for by Spring Meadows?

A Yes. Mr. Sawyer protested the classification proposal to the State Director and thereafter protested the classification to the Secretary of the Interior.

Q Just generally, were there other protests? [294]

A Yes, sir, there were.

Q (By Mr. Germeraad) Was a protest lodged by the United States Park Service?

A Yes, sir; a conditional protest.

Q Was Spring Meadows made aware of these protests?

A Yes.

Q Were they sent copies at various times of these protests or given written notification?

A They were given notification by certified mail of the pendency of the protests, the analysis of protests, and the disposition of the protests by the Secretary.

Q Since these protests occurred at various places along the line between probably what, 1967 or '68 and 1969, would that be the time?—

A I would have to refer to the file to be specific, sir; but this is substantially correct.

Q Be in the general time frame?

A The classification proposal issued, I believe, in 1970 or 1967, and I believe that the classification itself issued in 1968.

Q Since there were protests able to be lodged at various times through this procedure, was Spring Meadows, Inc. notified at different times of the procedures, and at more than one time at which the protests were made?

A Yes, they were made aware of what was transpiring. [295]

Q (By Mr. Germeraad) In the protests mentioned, made by the National Park Service, was the welfare of the pupfish mentioned?

A Yes.

Q Do Section 15 grazing permits allow irrigation for crops on federal land leased by the Government?

A Section 15 of the Taylor Act authorizes the issuance of leases of land rather than permits, and it would not include provision or authorization to irrigate land for farming.

Q On Monday Mr. Lionel asked a little bit about appraisals, and you made some remarks concerning those appraisals. Were those appraisals in the files which you brought to Court with you?

A They are not. [296]

* * *

Q (By Mr. Germeraad) On Monday Mr. Lionel had asked if he had ever seen your files, and your answer was "No"; is that correct? [297]

A Repeat that.

Q (By Mr. Germeraad) On Monday Mr. Lionel asked you whether he had ever seen your files. And your answer was "No"; is that correct?

A To the best of my knowledge he has not.

Q Has Mr. Engstrom gone through your files?

A Yes, he has.

MR. GERMERAAD: No further questions, your Honor.

REDIRECT EXAMINATION

BY MR. LIONEL:

Q Mr. Hillsamer, what land did the Government receive in exchange for this land that was patented to Spring Meadows, Inc.?

A Generally, sir, land in northeastern Humboldt County—do you require a specific legal description of this?

Q All right. Now, was this land which the Government received land which was needed by the Government in connection with a game refuge which it had?

A I can't answer you specifically. I think not in connection with a game refuge. I think it was acquired in connection with the ordinary range administration programs of the Bureau in the Winnemucca district.

Q Didn't the Bureau have some kind of a game refuge in which they wanted land so that when the birds would fly [298] into the refuge they would not have to fly over fee lands? Do you remember anything like that?

A I don't recall anything like that, sir.

Q (By Mr. Lionel) Okay. Now, counsel just asked you about protests that were made in conjunction with this application for the trade. Did you say there was no publication with respect to the proposed trade?

A There was publication made.

Q Where was publication made?

A In the Federal Register and in newspapers.

Q And, in fact, there were protests filed by numerous people?

A Not numerous people, Mr. Lionel. I recall the Park Service protest; the protest lodged by Mr. Sawyer for Mrs. *Druggs Bruecker* (phonetic); a protest lodged by—

Q Mr. Peterson?

A —Peterson; and a protest by a mining company.

Q Would that be the Nevada Non-Metalic Mining Company (phonetic)?

A Yes, sir.

Q Which was filed by Mr. Swink of Carson City?

A These are the only ones that I know about.

Q And was each of those protests considered?

A Yes.

Q And considered by whom? [299]

A Considered by first the district manager's staff people, and thereafter to the extent that they were sustained before the Secretary, they were considered by the Secretary's staff.

Q (By Mr. Lionel) I see. And that included a protest by the National Park Service?

A Yes, sir.

Q And that protest was on the ground that development of the area would increase water use, and would in turn lower the water level of Devil's Hole; isn't that correct?

A Yes, this is true.

Q And didn't the National Park Service say that—didn't they request that no land be classified so as to be available for this trade within one mile of Devil's Hole?

A That is correct.

Q And that protest filed by the National Park Service was in effect acceded to?

A That's correct.

Q In all respects?

A It was accommodated.

Q All right, now, do you have in your file, and did you bring with you pursuant to subpoena minutes of the Las Vegas District Advisory Board meeting of May 24, 1967?

A Yes, sir. [300]

Q (By Mr. Lionel) Do you have those, specifically the minutes of that day, May 24, 1967?

A Yes. I have that portion of those minutes that deals with this and a few other matters.

Here they are, sir.

Q I beg pardon?

A Here they are, sir.

Q You do have them?

A Yes.

Q Would you look at those, please? Perhaps we can save some time. Without pulling them out of your file, do those minutes reflect that on May 24, 1967, the Las Vegas District Advisory Board held a meeting at the Las Vegas BLM office?

A That's right, sir.

Q And does it also reflect that the proposed Ash Meadows exchange was considered?

A Yes, sir.

Q And do those minutes reflect that Spring Meadows, Inc. had purchased some five thousand acres of deeded land from George Swink, and with this additional land could develop the area for agricultural, livestock and residential homesites?

A Yes, sir.

Q At that time isn't it true that it was proposed [301] that there would be an exchange of 13,500 acres?

A I know that at that time this was—yes, sir, the minutes reflect this, 13,500.

Q (By Mr. Lionel) And do the minutes also reflect that the land that would be exchanged for this land would provide better management for the Winnemucca district of the Bureau of Land Management for livestock and recreation?

A Yes, sir; the minutes so reflect.

Q They so reflect?

A Sure do.

MR. LIONEL: Would you mark this as an exhibit?

THE CLERK: Defendants' Exhibit K marked for identification.

(Defendants' Exhibit K, being minutes of meeting, are marked for identification at this time.)

Q (By Mr. Lionel) Mr. Hillsamer, I show you what has been marked as Defendants' proposed Exhibit K, and I ask you if that is not a copy of the agenda and the minutes of the Las Vegas District Advisory Board meeting of May 24, 1967?

A Yes, sir. I prepared that as a Xerox copy.

MR. LIONEL: We offer that.

THE COURT: Any objection?

MR. GERMERAAD: Yes, your Honor, I do have [302] an objection.

VOIR DIRE EXAMINATION

BY MR. GERMERAAD:

Q Did you take these minutes, Mr. Hillsamer?

A No, I did not.

Q Were you at the meeting, Mr. Hillsamer?

A I was not.

MR. GERMERAAD: Then I object that there's no proper foundation.

BY THE COURT:

Q How did the minutes find their way in your file, sir?

A Quite honestly, your Honor, I don't know.

Q When the Advisory Board meets are the minutes normally a part of the file?

A Ordinarily, where there is a specific action by the board in connection with a title transaction such as

this, the district staff people would provide a copy for incorporation in the files so that the file reflects the response by the board to our query, routine query, for the board's views.

MR. GERMERAAD: Could I ask one more question?

Q Was there any decision made by the board at that meeting regarding Spring Meadows?

A There is nothing to indicate that the board made [303] a specific recommendation. There is indication, of course, that the matter was presented to the board.

Q (By Mr. Germeraad) Only that it was presented?

A Yes.

THE COURT: All right. The objection is overruled. The document will be received.

(Defendants' Exhibit K, having been previously marked for identification, is received in evidence.)

* * *

RECROSS-EXAMINATION

BY MR. GERMERAAD:

Q Mr. Hillsamer, what is the makeup of the Advisory Board?

A Well, this particular board is identified on the first page of these minutes. The Advisory Board generally are made up of elected representatives from the various grazing units.

And I should point out here that this was presented to the Advisory Board even though the lands involved are outside the organized grazing district. [304]

Q (By Mr. Germeraad) The Advisory Board is in itself advisory? It makes no decisions?

A It is advisory to the district manager, and I would enlarge upon the definition of the composition of the board. There is—the wildlife representative on the board is appointed.

Q And how many other representatives are there?

A I don't know, sir. I'll have to look at these minutes again and tell you.

Q Are there at least four then listed including the wildlife representative?

A There are more than four, sir, at best,—

Q In any case, most of the members, except for the wildlife representative—is the wildlife representative elected or is he appointed?

A The wildlife representative is appointed. The grazing representatives are elected.

Q So that other than the wildlife representative, the Advisory Board is made up of grazing representatives, in general?

A For the most part; yes, sir.

MR. GERMERAAD: No further questions.

THE COURT: Anything further, Mr. Lionel?

REDIRECT EXAMINATION

BY MR. LIONEL: [305]

Q (By Mr. Lionel) As part of the Advisory Board there are also BLM personnel; is that correct?

A No, there are not BLM personnel on the board. The Advisory Board advises the manager.

Q But BLM personnel are frequently present; isn't that correct?

A Oh, yes, sir; yes, sir.

Q And I point out to you that in Exhibit K in evidence it states that present was Mr. Ross Ferris, the Range Specialist, NSO. Who is he?

A Well, he was a Nevada State Office—NSO—Nevada State Office Range Specialist in our division of Resource Management. He now has a similar job in the Washington Office of the Bureau.

Q And who is Dennis E. Hess, District Manager?

A He's the Las Vegas District Manager.

Q For the Bureau of Land Management?

A For the Bureau of Land Management.

Q And was on May 24, 1967?

A He was.

Q And who is Gene Nodine?

A Gene Nodine is presently our District Manager in Battle Mountain. He at that time was a staff man on the district staff here in Las Vegas.

Q After his name on the minutes it says "Range Manager." [306] What does that mean?

A Well, that is the title of his job on the district staff.

Q (By Mr. Lionel) How about Malcolm Charlton, Area Manager, Caliente and Virgin Valley Resources Areas, what is he?

A He, too, was a staff man working for Mr. Hess.

Q And is an employee of the Bureau of Land Management?

A Yes; as an area manager, he is the first-line general subordinate to the district manager.

Q And was the District Manager, Mr. Hess, at that time in charge of the area where Ash Meadows was and where this exchange was going to be effected?

A Yes, sir; yes, sir. The Section 15 lands, as we call them outside of the grazing district, are administered by the Las Vegas District Office.

Q And how about Mr. Philip Zieg, shown here as a Range Conservationist?

A Yes, sir; he's a staff man to Mr. Hess.

Q And also Mr. Robert E. Currier—

A I don't know about Mr. Currier. I think he was—

Q —shown here?

A —a district staff man at the time.

Q An employee of the Bureau of Land Management?

A Yes. [307]

Q (By Mr. Lionel) And all these men were vitally concerned with respect to this proposed exchange of lands? They were concerned?

A They were concerned.

Q It was within their field and within their specific purview?

A I don't know that all of them had the responsibility for that particular geographic area. I'm sure that some of those people may have been more vitally concerned with other geographic areas of the district.

Q But Mr. Dennis E. Hess was really the man that—

A Overall.

Q —had overall charge and supervision?

A That's correct, sir.

Q In fact, he was the number one man in charge of this particular area?

A That's correct, sir.

Q And most vitally concerned with the effect of this then proposed exchange?

A That's right.

MR. LIONEL: I have nothing further.

RECROSS-EXAMINATION

BY MR. GERMERAAD:

Q While you've worked for the Bureau of Land Management, have you heard a lot of wild tales about the types [308] of development that people were going to propose?

A Yes, sir.

Q (By Mr. Germeraad) Have you heard so many that many times you just tune out the whole process?

MR. LIONEL: Well, if your Honor please, I'm going to object on the grounds it's not proper re-re-cross, and that it's irrelevant. The fact is, what happened in this case. That is the question.

MR. GERMERAAD: I'm simply showing, I think, what other BLM personnel, how they might approach persons who may lay out plans, whether they be realistic or unrealistic, your Honor. I think it's a proper question to ask.

THE COURT: I understand your point. Go ahead.

Q (By Mr. Germeraad) Do you understand the question?

A You asked me if I have heard wild tales from people about what they would do with federal land, and I said "Yes."

Q Do you put a whole lot of stock in everything that everyone tells you about their plans for development?

A No; obviously not.

MR. GERMERAAD: No questions, your Honor. [309]

REDIRECT EXAMINATION

BY MR. LIONEL:

Q Mr. Hillsamer, you dealt here with numerous people, Mr. Hochmuth, Mr. Brooks, Mr. McDonald and Mildred Johnson; and I think Mr. Holzman, too; is that correct?

A Yes, sir, I do recall. I met Mr. Holzman, but this was early in the game, and only on one occasion.

Q Did you put stock in what these people told you they were going to do with this land?

A Well, it sounded reasonable.

Q Were you impressed with the integrity of these people and the fairness of their dealings?

A Yes, sir. But I must qualify that answer with this statement, that I was first approached by my oldest acquaintance in the State of Nevada, Bob McDonald, and I have a bias in his favor. I'm inclined to believe what he tells me.

Q But did you have any doubt as to what these other people told you?

A None.

Q Did they deal fairly at all times with the Government and with you, Mr. Hillsamer?

A To the best of my knowledge, they dealt fairly.

Q And do you know whether they went out and acquired this land in Humboldt County, which became part of this [310] exchange?

A Well, yes, obviously they did, because they offered it in exchange and gave us the—

Q (By Mr. Lionel) And do you know whether or not they acquired this land for the purpose of making the exchange?

A I believe that's what happened.

Q And, in fact, didn't they acquire approximately 12,000 acres rather than only half of that which was exchanged?

A I believe this is correct.

* * *

BURNICE LEROY BARNETT,

(called as a witness on behalf of the defendants, being first duly sworn, testified as follows:) [311]

* * *

DIRECT EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Where do you live, Mr. Barnett?

A On the property of Spring Meadows, Lathrop Wells, near Lathrop Wells.

Q Is that the property that's shown on this Exhibit J on here (indicating)?

A Yes, it is.

Q What's your occupation or profession, Mr. Barnett?

A Farm manager.

Q And for how many years have you been a farm manager?

A Since 1954; I've been in the farm occupation all my life, but in this type of work since 1954.

Q How old are you now, Mr. Barnett?

A Sixty-one.

Q And how long have you been the farm manager at Spring Meadows?

A Next February it will be five years.

Q And are you employed there by Mr. and Mrs. Cappaert?

A Yes, sir.

Q And were you previously employed by Spring [312] Meadows, Inc. before it dissolved?

A No; not previous to this five-year period.

Q (By Mr. Lionel) The five-year period you've worked up there for Mr. and Mrs. Cappaert?

A Yes.

Q I see. You have seen this Exhibit J before in my office; is that correct?

A Yes.

Q And you know what the lands shown, what the green markings on here represent, don't you?

A Yes.

Q What do they represent?

A Well, the green represents the land that we have under production now.

Q When you say "under production," what do you mean?

A I mean the land that has been cleared, leveled and being irrigated now and producing crops.

Q What kind of crops are being produced?

A Bermuda grass, alfalfa, wheat, barley.

Q When you first came to the ranch almost five years ago, how much of that ranch was in production being cultivated?

A Less than 100 acres.

Q How many acres are presently in cultivation?

A Approximately 4,000 acres. [313]

Q (By Mr. Lionel) Where is the best land on the ranch?

A In the contested area, in the Point of Rocks area; Sections 8, 7—in that area.

Q Are you talking down here in the lower right-hand corner of Exhibit J?

A Lower right-hand corner.

Q Which in effect would be the southeastern portion of the ranch?

A Right.

Q Now, I'm going to point to a certain green area here along the right side of the map, and ask you how that land compares with the rest of the land on the ranch?

A Well that in production today is superior to the balance of the property, other than small parcels of 40 or 50 acres—that entire area there is very productive at this point.

Q Do you have any cattle on the ranch?

A Yes.

Q How many head?

A I have approximately seventeen to eighteen hundred total, on the total ranch.

Q Now, in this place that you said which was the best area of the ranch now in the lower right-hand corner here, how many cattle do you have on that portion? [314]

A Approximately 500 head.

Q (By Mr. Lionel) Of what does that 500 head consist?

A That's mother cows with a calf by their side.

Q Is there any reason why they're in that portion of the ranch?

A Because it's my better pasture. I want these mothers to have the best pasture.

Q Now, are you familiar with all the wells that are on this property?

A Yes, I am.

Q What would happen if you had to shut down Wells Numbers 1, 2 and 17?

A Well—

Q You know where 1, 2 and 17 are?

A Yes. That would block out the use of that, all that valley area.

Q When you say "all that valley area," you mean —?

A That long green strip next to the southeastern boundary; yes.

Q Did you build a reservoir in this area?

A Yes. I built a reservoir at the upper end of that area.

Q Would you come down here and show the Court where that reservoir is? [315]

THE COURT: I believe that's turned back. I can't see what you're talking about.

A In this area here the dam goes across the botton, very bottom portion of Section 5.

THE COURT: Is there a section number in there so you can identify it for the record, Mr. Lionel?

MR. LIONEL: Yes.

THE WITNESS: It's the southwest one-quarter of Section 5.

Q (By Mr. Lionel) And when did you build that reservoir?

A 1970.

Q What did you build that reservoir for?

A To store water, rain water that would fall on the mountain areas around; also to protect the land from flood damage.

Q I see. And if you no longer had this land, were able to have well water for this land here that we've discussed that you said was your best land, would that reservoir serve any purpose?

A It would partially irrigate the land below. That land would be used for irrigation, that water would be used for irrigation.

Q Would it be adequate for those purposes?

A No, sir. [316]

MR. GERMERAAD: I didn't hear the answer, please.

THE WITNESS: No, it would not be adequate.

Q (By Mr. Lionel) How many people are employed on that ranch?

A To date there are 34 men on payroll.

Q How many men did you have on the payroll as of the end of last year?

A Eighty-one.

Q What is the reason that your payroll is down so much?

A Correction—the eighty-one was employed September 1; it was eighty-one prior to September 1. Then we cut back in September.

Q And why did you cut back?

A Because of our water troubles.

Q What were these men doing?

A Well, continuous protests of any well that we wanted to drill, not being able to get right-of-ways from BLM, all pertaining to this.

Q What do you mean "all pertaining to this"?

A Well, I mean just that, any move that we made was being protested by either Park Service, Interior Department—

Q Has there been any land which has been cleared [317] which you have not been able to irrigate because of the water problem?

A Yes, sir.

Q (By Mr. Lionel) Would that be the land which is shown here on the map in brown, in Sections 7 and 12?

A Yes, that's it.

Q And how about down here in Section 18 (indicating)?

A Well, that also is part of the same problem.

Q If you had water could you irrigate that land?

A Yes, sir.

Q If you're able to pump Wells 4, 5 and 6, would you have water for that?

A I would have water for the upper, the 160, four-forties to the—

Q In Sections 7 and 12?

A —there's a section or a—Well 5 is to water that land but it is stopped.

Q Well, how about down here, what would you use (indicating)?

A There is a problem of bringing water from Jackrabbit Spring into that area there, both right-of-way troubles and method of taking water from Jackrabbit.

Q How much do these wells cost to dig?

A We have in these wells that are being protested, we have $110,133.40 involved. [318]

Q (By Mr. Lionel) Now, did you build any cement ditches in this southeastern portion of the ranch for the purpose to be used in conjunction with your irrigation there?

A Yes. I built a mile and a half of cement ditch.

Q And what did that cost?

A $5,940.00.

Q Supposing you couldn't pump Wells Numbers 1, 2 and 17, would those ditches have any use at all?

A None.

Q Now, was there any underground pipe that was built in order to irrigate the southwestern portion of the ranch?

A There were two and one-half miles.

Q And how much did that cost?

A $33,096.71.

Q And supposing you couldn't pump water from Wells 1, 2 and 17 to that portion of the ranch, what would happen to that underground pipe?

A It would be a total loss.

Q Now, when were Wells 16 and 17 dug?

A Oh, I think that was in the month of December of this year, '72— I mean, month of January of this year.

Q And when did you start to pump Well 17?

A I believe it was the month of March, the latter part of March. I'm not positive.

Q And was there any reason why Wells 16 and 17 were [319] dug where they were dug?

A Well, the main reason was that based on the information that U.S.G.S. could give us, that we had the water there and that it was not involved with water connected with Devil's Hole.

Q (By Mr. Lionel) Is that what Mr. Dudley told you in September of nineteen hundred and—of last year?

A Well, words to that effect; yes.

Q All right. Do you know how much you paid for electricity used in the ranch during the year 1971?

A $52,500.00.

Q And to whom was that paid?

A R.E.A.

Q And supposing that you had to shut down these wells which the Government is now seeking to shut down, what would that do to your electric bill?

A Well, sir, it would cut probably fifty thousand dollars off of that.

Q Most of the electricity is used in connection with the pumping?

A Yes, sir, it is.

Q Now, when is the time of the year that you most need to pump these wells?

A There are eight months of the year. You have—March through October are the most important months. I'll [320] occasionally use a little water in those off months, but very little.

Q (By Mr. Lionel) Is right now one of the most important periods of the year?

A Yes, sir.

Q What would happen if you couldn't pump the wells which the Government is trying to stop you from pumping?

A Well, that area would have to be closed down.

Q When you say "that area," are you talking about all this green area here in the lower right-hand corner of the map?

A Yes, sir.

Q And that would mean all that you have planted there in effect would be lost?

A Right.

Q What's the relationship of this area here in the lower right-hand corner of the southeastern portion of the ranch as compared to the rest of it from the standpoint of value of the land and what it produces?

A Well, I consider this land nearer not peak production but nearer peak production, certainly more valuable at this point of our operation than any other part of the property.

Q Does it in fact carry the entire ranch?

A Yes, sir. It is the only land that is probably [321] paying a profit at this date.

Q (By Mr. Lionel) And the rest of it is not?

A It is not; no, sir.

Q Now, do you have much heavy equipment up there?

A Yes, sir, I have a lot of it.

Q What do you have?

A Well, mainly the caterpillar line. I have big 657 scrapers. I have two of those. They are 50-yard machines. I have four caterpillar dozers of different sizes. I have another crawler. I have two small, smaller, three smaller 12-yard carryalls to move dirt. They're Hancock. They're owned by John Deere. A lot of wheel tractors. And I have big heavy wheel tractors for moving up there.

Q What was this equipment for?

A Well, most of it, all but your small wheel tractors, was bought to clear this land and to complete this operation.

Q And approximately how much was spent for that equipment?

A Over half a million dollars.

Q And what's being done with that equipment now?

A It is parked. All the heavy stuff is not in use.

Q Why?

A Because we can't go forward until we're sure that [322] we're going to be able to complete this operation with, being able to get water, to drill more wells as needed.

* * *

CROSS-EXAMINATION

By John H. Germeraad, of Counsel for Plaintiff.

Q You have been a ranch manager there five years next February?

A Right.

Q So as of now it's been four years and four months?

A Yes.

Q In 1967, approximately how many acres did you have under cultivation? Would it be about 300?

A 1967?

Q Yes.

A That was my first year there.

Q Yes.

A It was less than 100 at that time.

Q How about in 1968?

A I had approximately—just beginning, I had approximately—

Q Eight hundred by then, by the end of the season?

A Well, possibly so.

Q And how about 1969, by the end of the season how many did you have there? [323]

A '69, probably around 1,500, I would guess.

Q (By Mr. Germeraad) And maybe at the end of 1970 you hit 3,000?

A Yes.

Q And so then, as of now you have 4,000; is that correct?

A I have approximately 4,000 now.

Q When was the first time I met you, Mr. Barnett?

A The exact month and day I don't know. It was last summer.

Q And would it have been approximately September 2?

A Well, I think that would be close.

Q On that date you showed me around the ranch and showed me the entire operation, correct?

A That's right.

Q That day there were fields below the land which —let me go to the map—this is Well No. 5 at the top of the brown area?

A That is in fallow now; yes.

Q Yes; right. And this is Well 4 over here (indicating)?

A Right.

Q And this area is colored in green right there (indicating), correct?

A Right. [324]

Q (By Mr. Germeraad) On September 2 did you have tractors in the field preparing to put in barley at that location?

A I think the location you're talking about is one-quarter of a mile west of where you pointed out. Yes, I had tractors at work there preparing for it.

Q Is that area colored green?

A Beg pardon?

Q Is that area colored green on the map?

A Yes.

Q Were you notified of the stipulation which was entered into by the parties at the end of August last year, 1971?

A Yes.

Q Were you aware that under that stipulation Wells 4, 5 and 6 could continue to be pumped to salvage all existing crops until September 9?

A No, sir, I did not know that.

MR. GERMERAAD: I believe, your Honor, that is a matter of record in the case.

Q Did you, after my visit on September 7, use water to irrigate that section which you're putting in barley? You did put barley in there?

A Yes, I used water.

Q That is the reservoir which you pointed out to us, [325] which is north of some of your irrigated lands, and it's to the east of Devil's Hole; is that correct?

A Yes.

Q (By Mr. Germeraad) Does that reservoir leak, or have you had problems with it leaking, and it wouldn't hold up?

A I don't know. We've never had any rain to fill it.

Q Have you at times tried to get water to stay in there?

A I pumped a small amount at one time.

Q And that was built in 1970; is that correct?

A I believe that is correct.

Q Can you remember the first time when the Government asked or was seeking to have two of the wells shut down so that the water level in Devil's Hole would probably go back up? Would that have been in 1970 or 1971?

A Yes; that's right.

Q Is your employment on the ranch seasonal to some extent, that you will have more employees at one time than you will at another?

A Not in our operation. It's continual.

Q Would some of the manpower cutbacks that occurred in 1971 have been due to the efficiency of the concrete ditches? [326]

A Yes, that would be part of it.

Q (By Mr. Germeraad) You mentioned Jackrabbit Springs. Is Jackrabbit Springs on fee land owned by—

A No, that's on federal land owned by the Cappaerts.

Q That's on federal land?

A That's on federal land.

Q Have you in times past used water from Jackrabbit Springs on federal land?

A Yes, I have.

Q On occasion has the pump in Jackrabbit Springs been used to irrigate that land and pumped Jackrabbit Springs dry for all purposes?

A It didn't pump it dry because the flow was continual. My pump continued to pump at a rate of 1,000 gallons a minute out of it even though it was down.

Q It went down. Is Jackrabbit Springs another habitat of a different variety of pupfish?

A Well, I'm told now it is. I wasn't told that at the time the pump was in, I didn't know of any pupfish.

Q When exactly were these cement ditches put in?

A In January and February of 1972.

Q And when was the underground pipe put in?

A The underground pipe was put in, I believe, in 1969.

Q The pipe that takes the water from Well No. 1 and Well No. 17 over to the area next to Well No. 4, isn't there [327] a pipe that goes over there?

A Yes, there's a pipe goes from Well 4 in an L-shape going back toward Well 1, and from Well 1 going northward a half mile, and then going east again another half mile.

Q (By Mr. Germeraad) Was the pipe that goes from the well which earlier this year supplied water in the area of No. 4 Well, when was that underground pipe put in?

A In February of 1972.

Q And Wells 16 and 17 were put in in 1972; is that correct? You said January of this year?

A Yes; right.

Q So then, am I correct that the cement ditches, some of the underground piping and the new Wells 16 and 17 were all put in after this matter was already in litigation in this Court?

A Well, the well was put in at the time I told you, in 1972—this actual hearing here hadn't been called.

Q The suit was filed in 1971; is that correct?

MR. LIONEL: Object, your Honor; that's argumentative.

THE COURT: Ask him the date. The record speaks for itself.

Q (By Mr. Germeraad) When were you first aware that an action was filed against Spring Meadows and/or the Cappaerts? [328]

A This action here that we're having here today that you're talking about?

A (By Mr. Germeraad) Or the original complaint?

A Well, there was a complaint—

THE COURT: Counsel, don't go into what's in the file.

Ask him the date he put the wells in. Establish that factually. The record speaks for itself.

Q (By Mr. Germaraad) Did you make the decision to put in the cement ditches, Wells 16 and 17, and the

underground pipe that was put in then in this year at the beginning of 1972?

MR. LIONEL: Well, your Honor, I'm going to object to the form of the question. The underground pipe was put in in 1969, except in isolated instances, according to the witness's testimony.

MR. GERMERAAD: Right. I asked for part of the underground pipe. I didn't ask for all.

Q Did you make the decision to put these facilities in?

A Well, I made the decision. It wasn't necessarily made this year. The decision was made in the original plan of better methods of irrigation and conserving of water, was made when I first started. That's my plan on the whole operation. [329]

Q (By Mr. Germeraad) Have you ever irrigated for longer than eight months at a time?

A Well, I may have gone a little over, but eight months is the average figure for it, year in and year out.

Q Last year did you go into the month of December with some of your wells?

A It's possible; yes.

Q Are you an accountant, Mr. Barnett?

A No, sir.

A Do you keep records? How extensive are the records which you keep in your daily operation?

A Well, we keep, I feel, a very accurate set of records at our field office of our operation; not daily operation.

Q Earlier you said that certain southeastern portion of the ranch carries the entire ranch. Is this something that somebody has told you or do you know this from your personal knowledge?

A Nobody tells me anything about the operation. What I meant was that the income from that property helps to balance off the losses of the balance of the other property that is not near paying. I was speaking of income only.

Q Are you currently measuring the discharges of the wells at the Point of Rocks area?

A No. Our meters are not accurate. They're not [330] working. We at intervals asked Mr. Engstrom to check us out if we're in doubt of anything.

Q (By Mr. Germeraad) Then in this Point of Rocks area, this is where Wells 1 and 17 are, also, Well No. 2 I believe is in that area?

A Yes.

Q And this is the water that goes into some of the underground pipes?

A Right.

Q Are you aware that Spring Meadows Ranch has cooperated in a study with the Desert Research Institute?

A Yes.

Q On the area?

A Yes.

Q Have you seen the report of the Desert Research Institute?

A Not of any recent report. It may be in the office that I have some of the material I haven't had time to read.

Q Would you be surprised if the Desert Research Institute differed in its opinion of the value of the land in certain sections?

A Well, not surprised. We are proving quite a few surveys to be wrong in our production and what we can grow out there.

Q This machinery can be sold; can it not? [331]

A Well, I suppose there's a price on most used machinery.

Q (By Mr. Germeraad) On a per-acre basis, what is the carrying capacity of the past few years; if you know, in the southeastern area?

A It's running at this point very close to two cows to the acre. It's a cow and a half, actually, right now, but it will go to two here within thirty days.

Q Is that on the basis of more forage that's coming up?

A Yes, it's producing more forage than anything else we've got.

Q Does the quality of the water coming out of these different wells vary?

A Well, there's some variation. As a whole, all wells so far as salt, sodium, is very low. It's a very high quality water.

Q Is some of the water from some of the wells that which you might consider low quality water?

A No, sir; all wells are good.

Q Do you know whether the ranch has any records on the amount of water that has been pumped from any of the wells during any period of time that the ranch is operated?

A I know the bowl specification of every well there and, of course, we go by that figure, what the engineers have [332] designed each well to pump.

That's the only way I can give you gallons or acre-feet production over a period of time, I'll have to go back to my bowl specification. It balances out. A bowl will pump more in the spring of the year when the table is high than it is specified to do. But our specification is based on the bowl when it is drawn down to its low point.

Q (By Mr. Germeraad) Then during the year it's pumping, the water table then drops?

A That's right. It doesn't do all shelf pumping.

Q You mentioned that in September, 1971, you talked to Mr. Dudley. At this time were Wells 1, 2 and 3 still pumping?

A Definitely.

Q Did Dr. Dudley tell you that he thought you could drill wells in the area of 16 or 17, or did he tell you at that time that he didn't know where you could drill wells safer?

A He stated it was his opinion that the water supplying that area where those wells were was separate from that being supplied to Devil's Hole, and it was in his opinion that what we did in the way of pumping or drilling in that area would not affect the others. That was his opinion at that time.

BY THE COURT: [333]

Q Is that as to what wells, Mr. Barnett?

A Those wells in this—that's 1, 2, 3, 16 and 17. Well, 16 and 17 wasn't there at that time.

Q He did not say that about 4 then?

A Beg pardon?

Q He did not say that about Well 4 then; as you recall?

A No, I don't think he—no, he didn't say that about 4.

Q 1, 2, 3 and 17?

A Yes, 1, 2, 3—but no mention of 17 at that time. I hadn't drilled 17 at the time I talked to Mr. Dudley.

THE COURT: Go ahead, counsel.

Q (By Mr. Germeraad) Prior to the drilling of Wells 16 and 17, did you notify the Government that you were going to drill new wells?

A No, I did not.

Q Did you have a copy of the stipulation at the ranch?

MR. LIONEL: Well, your Honor, if we're going to try that proceeding, we might try the Assistant United States Attorney, because they brought this proceeding without giving us thirty days' notice as required by the stipulation. This is not a contempt proceeding, and that's why I'm objecting.

MR. GERMERAAD: I'm not asking that this in [334] any way be considered a contempt proceeding, and as for the views of Mr. Lionel, I'll handle that later in oral argument.

THE COURT: What is your question?

MR. GERMERAAD: Did he have a copy of the stipulation at the ranch since he was the ranch manager.

THE COURT: You can answer that.

A Yes, I have a copy of that.

Q (By Mr. Germeraad) Did you refer to it at any time during your operation or prior to drilling Wells 16 and 17?

A No, I did not.

MR. GERMERAAD: No further questions, your Honor.

REDIRECT EXAMINATION

BY MR. LIONEL:

Q Mr. Barnett, Wells 16 and 17 were drilled where Dr. Dudley said he thought you would be able to drill without affecting the level of water in Devil's Hole; is that true?

A That's correct; it was in that area.

MR. LIONEL: Nothing further.

THE COURT: Thank you, Mr. Barnett.

MR. LIONEL: I have nothing further, your Honor, except I assume we can allude in argument to the affidavits of Richard F. Cowart and the State Engineer, [335] Ronald D. Westergard, which were submitted in conjunction with this matter.

THE COURT: That completes defendants' evidence?

MR. LIONEL: Yes.

THE COURT: Do the intervenors have any testimony to offer?

MR. PAUL: We have no evidence to offer, your Honor. We would like to participate in the argument, however.

THE COURT: Do you have any additional evidence in rebuttal on behalf of the Government?

MR. GERMERAAD: Yes. I would like to call a witness in rebuttal.

THE COURT: How long would that take?

MR. GERMERAAD: Three minutes.

THE COURT: All right.

MR. GERMERAAD: I'd like to recall Dr. Dudley.

WILLIAM W. DUDLEY, JR.

(recalled as a witness in behalf of the plaintiff, in rebuttal, being previously duly sworn, was further examined as follows:)

THE CLERK: The record will show that Dr. Dudley has previously been sworn, testified, and remains under oath.

DIRECT EXAMINATION

By John H. Germeraad, Esq., of Counsel for Plaintiff: [336]

Q (By Mr. Germeraad) Dr. Dudley, you've been in the courtroom this morning?

A That's correct.

Q And you've heard the testimony of Mr. Barnett, the ranch manager?

A That is correct.

Q Did you hear the testimony regarding a conversation supposedly with you in September of 1971?

A That's correct.

Q Do you remember that conversation?

A Yes.

Q Could you relate that conversation to us as you remember it, to the best of your ability?

A Yes. It began in the Point of Rocks area. And we began an informal discussion of the movement and availability of water in the area.

During this time I stated that I was not in any way authorized by either the Government or by the stipulation between the Government and the ranch to give permission to anyone to drill for water at any place, because it's not one of my functions.

I also stated that we had no evidence that there would be any effect from that area; but there might well be.

Q And that's the way you remember the testimony, you remember the conversation, to the best of your ability? [337]

A Yes.

MR. GERMERAAD: No further questions.

CROSS-EXAMINATION

By Samuel S. Lionel, Esq., of Counsel for Defendants:

Q Dr. Dudley, do you remember what you testified on this point the other day?

A I would imagine it's a matter of record.

Q Precisely. Do you remember saying that you may very well have told Mr. Holzman and Mr. Barnett that wells could be drilled in the area where 16 and 17 have since been drilled, and that in your opinion it would not affect the level of the water in Devil's Hole?

A I would imagine I said at the time, although I did not have a tape recorder of the conversation, I would imagine I said at the time that I had no evidence that they would have affected it. And this point was clarified in a telephone call—

Q Well, I didn't ask you that. I'm just talking about the conversation you had with Mr. Barnett and Mr. Holzman?

A Yes.

Q You say you told them at that time you had no evidence that any wells dug, 16 and 17, or were subsequently dug, would affect Devil's Hole; is that what you're saying?

A That is correct; and at that time I had that— [338]

Q (By Mr. Lionel) And did you tell them at that time you didn't think that drilling in that area would affect the level?

A I can not recall if I said it.

Q You could very well have?

A I suppose I might have. [339]

* * *

7. Government's 1972 Exhibit 12, Protest Filed With the Nevada Engineer Re Well No. 1.

In the Office of the State Engineer of the State of Nevada.

In the Matter of Application Number 25557, Filed by Spring Meadows, Inc., on April 21, 1970, to Appropriate the Waters of Underground source at a point located within the NE¼ SE¼ Section 28, T17S, R50E, MDB&M.

Protest of Application for permission to appropriate the public waters of the State of Nevada.

Comes now Gerard S. Witucki for the National Park Service Western Service Center, Water Resources Section, whose post-office address is 450 Golden Gate Ave., Box 36025, S.F., Calif. 94102, whose occupation is Chief, Water Resources Section, WSC, and protests the granting of application number 25557, filed on April 21, 1970 by Spring Meadows, Inc. Lathrop Wells, Nevada to appropriate the waters of Underground Source situated in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

> Reference is given to the report, "Hydrogeology of the Devil's Hole area, Ash Meadows, Nevada," by G. William Fiero & G. B. Maxey; on the basis of the information presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In recent

months other springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved, it can be expected that grave consequences to the ecology of this area will result. On the basis of this information, the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows-Devil's Hole area.

Wherefore protestant prays that the application be denied and that the use of water herein claimed by protestant be confirmed and that an order be entered establishing said right and for such other relief as the State Engineer deems just and proper.

/s/ Gerard S. Witucki
Gerard S. Witucki
Protestant.

State of Nevada, County of Nye—ss.

....., being first duly sworn, deposes and says, that he has read the foregoing protest and knows the contents thereof and that the same is true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believes it to be true.

Subscribed and sworn to before me this 10th day of August 1970.

/s/ S. Douglas
S. Douglas
Deputy Clerk
Deputy Clerk, U.S. District Court
Northern District of California

8. Government's 1972 Exhibit 13, Protest Filed With the Nevada Engineer Re Well No. 5.

In the Office of the State Engineer of the State of Nevada.

In the Matter of Application Number 25559, Filed by Spring Meadows, Inc., on April 21, 1970, to Appropriate the Waters of Underground Source at a Point Located Within the NW¼, NW¼, Section 7, T18S, R51S, MDB&M

Protest of Application for permission to appropriate the public waters of the State of Nevada.

Comes now Gerard S. Witucki for the National Park Service Western Service Center, Water Resources Section whose post-office address is 450 Golden Gate Ave., Box 36025, S.F., Calif. 94102 whose occupation is Chief, Water Resources Section, WSC, and protests the granting of application number 25559, filed on April 21, 1970 by Spring Meadows, Inc., Lathrop Wells, Nevada to appropriate the waters of Underground Source situated in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

Reference is given to the report, "Hydrogeology of the Devil's Hole area, Ash Meadows, Nevada," by G. William Fiero & G. B. Maxey; on the basis of the information presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In recent months other springs in the area which provide the habitat

for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved, it can be expected that grave consequences to the ecology of this area will result. On the basis of this information, the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows-Devil's Hole area.

Wherefore protestant prays that the application be denied and that the use of water herein claimed by protestant be confirmed and that an order be entered establishing said right and for such other relief as the State Engineer deems just and proper.

/s/ Gerard S. Witucki
Gerard S. Witucki
Protestant

State of Nevada, County of .....—ss.

....., being first duly sworn, deposes and says, that he has read the foregoing protest and knows the contents thereof and that the same is true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believes it to be true.

Subscribed and sworn to before me this 20th day of July, 1970.

/s/ S. Douglas
S. Douglas
Deputy Clerk, U.S. District Court
Northern District of California

9. Government's 1972 Exhibit 14, Protest Filed With the Nevada Engineer Re Well No. 3.

In the Office of the State Engineer of the State of Nevada.

In the Matter of Application Number 25561, Filed by Spring Meadows, Inc., on April 21, 1970, to Appropriate the Waters of Underground Source at a Point Located Within the NE¼, SE¼, Section 7, T18S, R51E, MDB&M.

Protest of Application for permission to appropriate the public water of the State of Nevada.

Comes now Gerard S. Witucki for the National Park Service, Western Service Center, Water Resources Section, whose post-office address is 450 Golden Gate Ave., Box 36025, S.F., Calif. 94102 whose occupation is Chief, Water Resources Section, WSC, and protests the granting of application number 25561, filed on April 21, 1970 by Spring Meadows, Inc. Lathrop Wells, Nevada to appropriate the waters of Underground Source situated in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

Reference is given to the report, "Hydrology of the Devil's Hole area, Ash Meadows, Nevada," by G. William Fiero & G. B. Maxey; on the basis of the information presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In recent months other

springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved it can be expected that grave consequences to the ecology of this area will result. On the basis of this information, the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows-Devil's Hole area.

Wherefore protestant prays that the application be denied and that the use of water herein claimed by protestant be confirmed and that an order be entered establishing said right and for such other relief as the State Engineer deems just and proper.

/s/ Gerard S. Witucki
Gerard S. Witucki
Protestant.

State of Nevada, County of .....—ss.

....., being first duly sworn, deposes and says, that he has read the foregoing protest and knows the contents thereof and that the same is true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believes it to be true.
Subscribed and sworn to before me this 20th day of July, 1970.

/s/ S. Douglas
S. Douglas
Deputy Clerk, U.S. District Court
Northern District of California

10. Government's 1972 Exhibit 15, Protest Filed With the Nevada Engineer Re Well No. 2.

In the Office of the State Engineer of the State of Nevada.

In the Matter of Application Number 25562, Filed by Spring Meadows, Inc., on April 21, 1970, to Appropriate the Waters of Underground source at a point located within the NE¼, SE¼ Section 7, T18S, R51E, MDB&M.

Protest of Application for permission to appropriate the public waters of the State of Nevada.

Comes now Gerard S. Witucki for the National Park Service Western Service Center, Water Resources Section whose post-office address is 450 Golden Gate Ave., Box 36025, S.F., Calif. 94102 whose occupation is Chief, Water Resources Section, WSC, and protests the granting of application number 25562, filed on April 21, 1970 by Spring Meadows, Inc., Lathrop Wells, Nevada to appropriate the waters of Underground Source situated in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

Reference is given to the report, "Hydrology of the Devil's Hole area, Ash Meadows, Nevada", by G. William Fiero & G. B. Maxey; on the basis of the information presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In recent months other

springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved it can be expected that grave consequences to the ecology of this area will result. On the basis of this information, the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows-Devil's Hole area.

Wherefore protestant prays that the application be denied and that the use of water herein claimed by protestant be confirmed and that an order be entered establishing said right and for such other relief as the State Engineer deems just and proper.

/s/ Gerard S. Witucki
Gerard S. Witucki
Protestant.

State of Nevada, County of .....—ss.

....., being first duly sworn, deposes and says, that he has read the foregoing protest and knows the contents thereof and that the same is true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believes it to be true.

Subscribed and sworn to before me this 20th day of July, 1970.

S. Douglas
/s/ S. Douglas
Deputy Clerk, U.S. District Court
Northern District of California

11. Government's 1972 Exhibit 16, Protest Filed With the Nevada Engineer Re Well No. 4.

In the Office of the State Engineer of the State of Nevada.

In the Matter of Application Number 25564, filed by Spring Meadows, Inc., on April 21, 1970, to appropriate the waters of underground source at a point located within the NE¼, SW¼, Section 7, T18S, R51E, MDB&M.

Protest of Application for permission to appropriate the public waters of the State of Nevada.

Comes now Gerard S. Witucki for the National Park Service Western Service Center, Water Resources Section, whose post-office address is 450 Golden Gate Ave., Box 36025, S.F., Calif. 94102 whose occupation is Chief, Water Resources Section, WSC, and protests the granting of application number 25564, filed on April 21, 1970 by Spring Meadows, Inc., Lathrop Wells, Nevada to appropriate the waters of Underground Source situated in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

Reference is given to the report, "Hydrogeology of the Devil's Hole area, Ash Meadows, Nevada," by G. William Fiero & G. B. Maxey; on the basis of the information presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In recent months other

springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved it can be expected that grave consequences to the ecology of this area will result. On the basis of this information, the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows-Devil's Hole area.

Wherefore protestant prays that the application be denied and that the use of water herein claimed by protestant be confirmed and that an order be entered establishing said right and for such other relief as the State Engineer deems just and proper.

/s/ Gerard S. Witucki
Gerard S. Witucki
Protestant.

State of Nevada, County of .....—ss.

....., being first duly sworn, deposes and says, that he has read the foregoing protest and knows the contents thereof and that the same is true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believes it to be true.

Subscribed and sworn to before me this 20th day of July, 1970.

S. Douglas
Deputy Clerk, U.S. District Court
Northern District of California

12. Government's 1972 Exhibit 17, Protest Filed With the Nevada Engineer Re Well No. 17.

In the office of the State Engineer of the State of Nevada.

In the Matter of Application Number 26446, filed by Cappaert Enterprises, on December 21, 1971, to appropriate the waters of underground source at the new point of diversion located within the NW¼ SW¼ SEC.8 T18S, R51E MD B&M.

Protest of Application for Permission to Change the place of use and manner of use of a portion of the public waters of the state of Nevada.

Comes now Gerard S. Witucki for the National Park Service/Interior, Western Region, Water Resources (ASW) whose post-office address is P.O. Box 36063, San Francisco, California 94102 whose occupation is Chief, Water Resources, and protests the granting of application number 26446, filed on December 21, 1971 by Cappaert Enterprises, Vicksburg, Mississippi to appropriate the waters of Underground Source situated in Nye County, State of Nevada, for the following reasons and on the following grounds, to wit:

Reference is given to the report, "Hydrogeology of the Devil's Hole area, Ash Meadows, Nevada," by William Fiero & G. B. Maxey; on the basis of the information presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada, would result from the pumping of underground water in this area. This has been largely substantiated by the recent monitoring of this water level by the U.S. Geological Survey. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In

recent months, other springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved, it can be expected that grave consequences to the ecology of this area will result. On the basis of this information, the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows-Devil's Hole area.

WHEREFORE protestant prays that the application be Denied and that the use of water herein claimed by protestant be confirmed and that an order be entered establishing said right and for such other relief as the State Engineer deems just and proper.

/s/ Gerard S. Witucki
Protestant.

State of California, County of San Francisco—ss.

Gerard S. Witucki, being first duly sworn, deposes and says, that he had read the foregoing protest and knows the contents thereof and that the same is true of his own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters he believes it to be true.

/s/ Gerard S. Witucki

Subscribed and sworn to before me this 11th day of February 1971.

S. Douglas
/s/ S. Douglas
Deputy Clerk, U.S. District Court
Northern District of California

13. Reporter's Transcript of Proceedings Had Before the State Engineer, December 16, 1970.

In the Matter of Spring Meadows, Inc., Applicant. Application Nos. 25556, 25557, 25558, 25559, 25561, 25562, 25564, 25571, 25581, 25662.

Reporter's transcript of proceedings had before the State Engineer, held in the County Commission Chambers, Courthouse, Las Vegas, Nevada, on Wednesday, December 16, 1970, at 9:00 o'clock a.m.

APPEARANCES:

State Engineer: Mr. Roland D. Westergard.

For the Applicant: Thomas R. C. Wilson, II., Esq. McDonald, Carano, Wilson & Bergin, 60 Court Street, Reno, Nevada.

For the Protestant U. S. Department of Interior: Otto Aho, Esq., Field Solicitor, United States Department of the Interior, Room 2004, Federal Building, 300 Booth Street, Reno, Nevada.

LAS VEGAS, NEVADA, WEDNESDAY,
DECEMBER 16, 1970:

MR. WESTERGARD: This is the time and place, after due notice, for the hearing in the matter of certain applications filed by Spring Meadows, Inc., specifically by numbers these applications to appropriate water are: 25556, 25557, 25558, 25559, 25561, 25562, 25564, 25571, 25581 and 25662.

The hearing is reported today and we do appreciate him filling in, certainly the last minute, because of the difficulty in the weather conditions in Reno, the scheduled Reporter was not here. The Reporter now will be sworn.

(Thereupon the Court Reporter was duly sworn.)

MR. WESTERGARD: The two parties appearing are Spring Meadows, Inc., and the National Park Service. We also have on file a protest by Michele Enterprises, Ltd. Is that firm represented today?

(No response.)

MR. WESTERGARD: The record will indicate that they are not.

Will the attorneys for the parties state their appearances, please?

MR. AHO: I am representing the Protestant, the National Park Service of the United States Department of Interior. My name is Otto Aho, Field Solicitor, Room 2004 Federal Building, United States Courthouse, 300 Booth Street, Reno, Nevada 89502.[3]

MR. WILSON: I am Thomas R. C. Wilson, 60 Court Street, Reno, Nevada, counsel for the Applicant Spring Meadows, Inc.

MR. WESTERGARD: As far as payment for the cost of the transcript of the hearing, the State will require an original and one copy and after a determination of the cost it will be split between the two parties.

MR. AHO: When the cost has been determined and split between the two parties, I will ask that the bill for the payment of the record be presented to the National Park Service, United States Department of Interior, Western Service Center, 540 Golden Gate Avenue, Box 36125, San Francisco, California, 94102, and I will stipulate that the government is to share equally in the cost.

With respect to copies of the transcript, I hope to hear from the interested agencies within a matter of a week and if any copies of the transcript are required

I will ask the agencies to make their request directly to the Reporter for the copies.

MR. WESTERGARD: I think it would be in order to briefly describe the ten applications and the protests thereto under consideration here today.

The numbers in order are No. 25556, the Applicant is Spring Meadows, Inc., the water is from an underground source in the amount of 6.0 second feet to be used for irrigation and domestic and it is used for the irrigation of [4] 960 acres. The point of diversion is the northwest quarter of the southeast quarter, section 12, Township 18 South, Range 50 East, M.D.B. &M., and the place of use—rather than detail this into the record, this will be considered a part of the record by reference.

Application No. 25557, the source also is underground, the amount 6.0 second feet for irrigation and domestic, for irrigation of 600 acres. The point of diversion is described as the Northeast Quarter, Southeast Quarter, Section 28, Township 17 South, Range 50 East, M.D.B.&M.

No. 25558, the source is underground, amount 6.0 second feet, use, irrigation and domestic on 1400 acres. Point of diversion to be Northeast Quarter of the Northeast Quarter of Section 6, Township 18 South, Range 51 east, M.C.B.&M.

25559, source underground, amount 6.0 second feet, use irrigation and domestic for irrigation of 1320 acres. The point of diversion is the Northwest Quarter of the Northwest Quarter, Section 7, Township 18 South, Range 51 East, M.D.B.&M.

No. 25561, source underground; amount 6.0 second feet for irrigation and domestic on 1,040 acres; diver-

sion point is Northeast Quarter of the Southeast Quarter of Section 7, Township 18 South, Range 51 East, M.D. B.&M.

No. 25562, source underground, amount 6.0 second feet, for irrigation and domestic for irrigation of 1,040 [5] acres, source of diversion Northeast Quarter of Southeast Quarter of Section 7, Township 18 South, Range 51 East, M.D.B.&M.

No. 25564, source is underground, amount is 6.0 second feet, use for irrigation and domestic for 1,080 acres: Diversion Northeast Quarter of Southwest Quarter of Section 7, Township 18 South, Range 51 East, M.D. B.&M.

No. 25571, source is Pointed Rock Springs, amount is 3.0 second feet for irrigation and domestic, 1,040 acres, diversion point Southeast Quarter of the Northwest Quarter of Section 7, Township 18 South, Range 51 East, M.D.B.&M.

No. 25581, source is underground, 3.0 second feet to be used for stock and domestic purposes, 5,000 cattle. Point of diversion Northeast Quarter of the Northeast Quarter of Section 11, Township 18 South, Range 50 East, M.D.B.&M.

No. 25662, source is underground, amount 3.0 second feet to be used for recreation and domestic, point of diversion is the Northeast Quarter of the Northeast Quarter of Section 6, Township 18 South, Range 51 East, M.D.B.&M.

Now, I have on file a protest of the applications by the National Park Service and grounds of the protest are as follows, and I quote:

"Reference is given to the report, 'hydro-geology of the Devil's Hole area, Ash Meadows, Nevada,' by

G. William Fiaro and G. B. Maxey; on the basis of the information [6] presented in this report, it is indicated that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada, would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus, Cyprinodon (desert pupfish) which inhabit Devil's Hole. In recent months, other springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources. Should the subject application to appropriate water be approved, it can be expected that grave consequences to the ecology of this area will result.

"On the basis of this information the National Park Service must protest the appropriation of any additional public waters from underground sources in the Ash Meadows—Devil's Hole area.

"Wherefore, Protestant prays that the application be denied and that the use of water herein claimed by Protestant be confirmed and that an order be entered establishing said rights and for such other relief as the State Engineer deems just and proper."

There was also a protest filed against Application No. 25571 by the Michele Enterprises, Ltd. The grounds for protest are as follows, and I quote:

"The source is fully appropriate, as would infringe [7] on existing rights owned by the Protestant or its predecessors in interest, and that it would be detrimental to the public welfare."

They pray that the application be denied.

With this background material in the record, we will proceed. It is customary, and I have not heard objections, that the Protestant proceed first, then the Applicant proceeds.

MR. AHO: May I inquire, may we refer to the basin that is involved here generally as the Ash Meadow basin?

MR. WESTERGARD: For the purpose of this testimony, this would be fine.

MR. AHO: The United States Department of the Interior requests that the Nevada State Engineer either reject outright the pending water applications of Spring Meadows, Inc., or postpone further action thereon pending the completion of certain studies presently being made of the water basin within which the pending applications pertain, namely, the Ash Meadows basin.

The U.S. Department of the Interior requests the alternative actions because of the real threat to the continued existence of the pupfish in the area created by the present withdrawals of water in the area and which threat, in all probability, would be maximized by the approval by the State Engineer of any further water applications in the area.

The pupfish found in the Ash Meadows area represent [8] the remains of large fish populations which inhabited the ancient lakes of the Southwest following the last Ice Age. The ancestors of the pupfish became isolated more than 20,000 years ago when the extensive lake system of the Death Valley region began to dry up and recede. In the isolated pool in Devil's Hole in the Ash Meadows Basin and in the other springs in the area these isolated fish populations evolved rapidly

into unique species which are highly adaptive to the ecological conditions in their hot water environment. Scientists believe that these species represent an enormous research potential in the area of genetics and evolutionary change and deserve the degree of protection which has been given the Everglades alligator and the whooping crane.

Devil's Hole is a natural pool of water about 10 feet in width and 40 feet in length in the Ash Meadows Basin. The water surface is approximately 50 feet below the surface of the surrounding landscape. The pool extends deep into the caverns of the carbonate rock structure where it is believed to be interconnected with the regional ground-water system. In 1952, President Truman issued a Presidential Proclamation adding the 40 acres containing Devil's Hole to the Death Valley National Monument. The Proclamation recognized the unique scientific value of the Devil's Hole pupfish and stated that the subterranean pool in Devil's Hole is "of such outstanding scientific importance that it should be given special [9] protection." The "peculiar race of desert fish" was cited by the President as a primary reason for protecting Devil's Hole.

The world's entire population of the Devil's Hole pupfish, the Cyprinodon diabolis, dwells in the confines of the warm pool in Devil's Hole. Other species of pupfish are limited in their distribution to certain shallow springs in the general area of Devil's Hole and the Ash Meadows Basin. These diminutive fish, because of their restricted distribution and numbers, are recognized as endangered species and are on the list of endangered species of the United States promulgated by the Secretary of the Interior under the provisions of the Rare

and Endangered Species Act of 1965, 16 U.S.C. 668aa.

During the summer of 1969 the water level in Devil's Hole began to drop drastically. A Continuous water level recorder, maintained by the U. S. Geological Survey, indicated that by October of 1969 the water level was approximately 10 inches lower than the May, 1969, level. During the winter months of 1969-70 there was a recovery of approximately only three inches before the level began to drop again in the spring of 1970. In early November, the hydrograph showed that another ten-inch drop in the water level had occurred during the summer of 1970. At that time, the water level was approximately 18 inches lower than it had been at any time [10] since the recorder was first placed in Devil's Hole in 1956. The water level had declined so rapidly that large portions of a shallow rock shelf which had been covered by the water in May, 1970, were now exposed.

The existence of the Devil's Hole pupfish population depends upon maintaining the water level above the submerged rock shelf, for it is upon this shelf that the entire population feeds and reproduces. The shelf is 10 feet wide and 18 feet long. Beyond the shelf the water drops precipitously into a cavern more than 284 feet deep. Sun rays that stimulate growth of algae strike the water surface and the submerged shelf for only brief periods during summer days. During the winter months little, if any, direct sunlight reaches the shelf. The amount of food produced on the shelf controls the size of the pupfish population. The rapid decline in the water level at Devil's Hole prompted the National Park Service to install an artificial shelf below the water's surface. The Park Service believes that at best the

shelf should be considered merely a temporary remedy as it is inconsistent with the natural environment of Devil's Hole. Biologists report that the extinction of the pupfish in Devil's Hole may be imminent if the decline in the water level therein is not reversed.

Large scale ground water withdrawals have been made and will be made in the Ash Meadows area, principally by [11] Spring Meadows, Inc. Spring Meadows, Inc., has drilled over 30 wells in the area. At least 8 of these wells have been utilized for irrigation purposes. Most of these wells are within a three-mile radius of Devil's Hole.

Although several studies of the ground water conditions in the Ash Meadows region have been made, it appears that the exact nature of the hydrological structure is not fully understood.

Hydrologists know that the ground water in the Ash Meadows area occurs principally in two subterranean regions—the surface alluvial system and the underlying carbonate rock system.

The alluvial system is composed of deposits from Pleistocene lakes a swell as debris which has been eroded from surrounding mountains. These deposits have been estimated to vary in thickness from 1,000 to 5,000 feet thick. Drilling logs and information from the Nevada State Engineer's Office indicates that the irrigation wells drilled by Spring Meadows, Inc., are located within the alluvial layer.

Underlying the valley fill is a layer of carbonate rock composed primarily of gray limestone. Hydrologists are of the apparent opinion that the springs in Ash Meadows and Devil's Hole are associated with the ground water contained in this structure. Two factors

which bear out this theory are: one, the high temperature of the water, which indicates [12] extreme depth; and, two, the water chemistry. The water temperature in Devil's Hole has been determined to be 92 degrees, which indicates a deep source. There appears to be little, if any, doubt that direct pumping from wells reach directly into the carbonate aquifer.

Since the heavy pumping is occurring from the alluvial fill and Devil's Hole is connected with the carbonate rock aquifer, the crucial factor is the relationship which exists between these two water systems. The extent to which the two flow systems are interconnected appears to have been determined only in general terms. Deep wells in the area which penetrate the carbonate rock aquifer have higher heads than do nearby wells which are located in the alluvium. This suggests an upward flow pattern from the lower layer where conditions permit.

Hydrologists theorize that the fault in the Ash Meadows region provides an opportunity for the water in the carbonate rock aquifer to escape into the alluvium.

A test which would support this hypothesis occurred in 1967. A well was drilled into the alluvium about 900 feet northeast of Crystal Spring, which is located two miles from Devil's Hole. After three hours of heavy pumping, the flow from Crystal Spring was reduced by 175 gallons per minute. The water pumped was found to have a similar temperature and chemistry to that in Crystal Spring and the carbonate rock [13] aquifer, thus indicating a common source. A similar well was drilled into the alluvium 900 feet east of Devil's Hole and was pumped for less than three hours. Although no

decline was noted in the water level in Devil's Hole, the temperature and chemistry of the water level prompted Dr. G. B. Maxey, a hydrologist, to conclude that it was "undoubtedly drawn from the same carbonate aquifer" as Devil's Hole.

Dr. Maxey is associated with the Center for Water Resources Research, Desert Research Institute, University of Nevada System, Reno. The Center for Water Resources Research was requested by the Department of the Interior to conduct a hydrologic study of the Devil's Hole area. A report thereon, entitled "Hydrogeology of the Devil's Hole Area, Ash Meadows, Nevada," was published by the Center in June, 1970—a copy of which was furnished to the Nevada State Engineer. In its "Summary," the report alludes to the large-scale, ground water withdrawal by pumping by Spring Meadows, Inc., and states then that:

> "The relationship of the time of maximum pumping to the periods of water level decline in Devil's Hole shows a high degree of correlation. Continued heavy ground water withdrawal by pumping will cause a continued decline in pool level in Devil's Hole and a reduction of [14] discharge from the major springs in the Ash Meadows area."

Hydrologists with the United States Geological Survey are of the same opinion, one of whom has stated that: "A hydrologist would be hard pressed to explain that such a decline in water levels is the result of anything other than pumping."

The U. S. Department of the Interior has funded a water supply study of the Ash Meadows region to be made by the U. S. Geological Survey. The work is

underway with the cooperation of Spring Meadows, Inc. The study is designed to provide a large volume of data in the shortest period of time possible. The study is aimed specifically at clarifying the relationship between water withdrawals and the existing water structure underlying the area, as well as determining the annual recharge of the system. The need for this information has been well demonstrated.

A second project is presently being planned by the Interior Department which will allow the Desert Research Institute to take the information collected by the Geological Survey and prepare predictive models for use in the management of the water resources in the Ash Meadows basin. Factors relating to the feasibility of augmenting present ground water resources with surface storage and distribution facilities, artificial recharge, and water importation will be evaluated also in the Desert Research Institute project. [15]

In addition to these two projects, the Bureau of Reclamation will soon initiate an investigation to determine the feasibility of developing the ground water resources of Amargosa Valley for present and projected agricultural, municipal and industrial use. Detailed studies would be conducted thereunder to determine more accurately the amount of ground water recharge to the valley fill and the amount of ground water that can be withdrawn economically. Extensive exploration of geohydrology will be made to prove the extent of the ground water basin and it will be ascertained if pumping from the alluvial source will endanger the springs in the Ash Meadows area, and/or the pupfish population, in any way.

It is well recognized by the hydrologists that the aquifer of the Ash Meadows Basin is an extremely

complex one. The key to the survival of the pupfish is the understanding of the complexities of the underground water system in the Ash Meadows Basin and the use of these waters by man. The technical data necessary for the understanding of the complexities of this underground water system is inadequate at the present time. The previously mentioned studies of the U.S. Department of the Interior and the Desert Research Institute will furnish this required information.

These studies are being undertaken to benefit all parties concerned, viz.: The Federal Government with its primary concern for the continued existence of the pupfish and [16] the preservation of Devil's Hole; the State Government with its concern for the continued existence of the pupfish because of its jurisdiction over fishes within its boundaries and because of its concern for the most effective and economical use of the waters in the State; and Spring Meadows, Inc., with its concern for a continuous and dependable water supply. These studies will develop the needed additional information on the serious water supply problem in the Ash Meadows area. These studies will clarify the water supply as it relates to Devil's Hole, will provide the needed information for the management of the water resources in the Ash Meadows area, and will be useful in the development of a water supply management plan for the Ash Meadows area, consistent with environmental interests.

The present annual large withdrawals of water in the Ash Meadows Basin pose a real and serious threat to the continued existence of the pupfish in Devil's Hole and the other pupfish in the area and these large withdrawals may, in fact, exceed the annual recharge of the water in the Basin with its dire consequences to

the entire underground water supply in the Basin. The approval of the pending applications of Spring Meadows, Inc., and any other applications, to appropriate water in this Basin would only increase manyfold the present dangers to the existence of the pupfish and the underground water supply in the Ash Meadows Basin. [17]

The U. S. Department of the Interior recommends most strongly to the Nevada State Engineer that he reject outright the pending applications of Spring Meadows, Inc., and any other pending applications, or postpone any action thereon until the previously mentioned studies are completed and analyzed.

That concludes my statement. Thank you.

MR. WILSON: A point of inquiry, is this statement that was read, is it the Engineer's position that the factual statements presented in the body of this report are to be accepted as evidence on the part of the Protestant, or are they like any statement, if they are not evidence of the facts, they are not considered. For example, on page six and seven there are certain—and in other parts of the statement, there are in effect accounts of statements made by other parties of source, hydrological and geological conclusions with respect to the effect the granting of these applications would have on the subject Basin.

MR. AHO: It is my request that those statements are to be taken as evidence of the fact. You do have copies of Dr. Maxey's report and you also have, of course, your own information in your own office to which I referred, the well drilling logs, and you also are well aware that the United States Geological—the individual's name escapes me for the moment—is

working closely with your office in a water study, [18] and I think all of the information to date which I have alluded to in my report is available and in reports in your own office, if I am not mistaken.

MR. WILSON: This material is a matter of record, that is right; but my point being there should be an opportunity to question the material that is presented here, at least to explore it in detail; that is my feeling, at least as far as this hearing is concerned.

MR. WESTERGARD: Well, the statement, of course, that was presented will be included in the record and the reports that are mentioned will also be evaluated.

In other words, the reports mentioned in the statement will be a part of the record.

MR. AHO: If I may make a further statement, I would like to state for the record that these reports tend mostly to indicate the need for further studies. These reports indicate that the precise data is not available at the present time and that is why we are urging most strongly that you withhold action until the other reports are completed which will be of a highly technical and acceptable nature.

MR. WILSON: I had another inquiry and that is, also, to inquire, insofar as the Engineer's knowledge and records are concerned referred to in the statement appearing on page 10 which asserts that these large withdrawals may, in fact, exceed the annual recharge of the water in the Basin with its [19] dire consequences to the entire underground water supply in the Basin. It is my general understanding that the actual withdrawal of water at the present time is within and does not exceed the annual recharge, if my understanding is correct.

MR. WESTERGARD: This material is not of record in this hearing, Mr. Wilson, but there is a certain amount of information on this report, the State Engineer's report, and that has been and will be considered.

MR. WILSON: Now, with respect to the factual situation regarding the use of water exceeding the annual recharge, should we have witnesses for that or do the words "may, in fact, exceed the annual recharge—" The point of my inquiry is to ask, as a factual matter, whether or not the use of water at the present time, so far as your information is concerned, does in fact exceed the annual recharge or whether the use of water at this time is within the annual recharge. Mr. Aho's statements says "may", and I am simply raising that question.

MR. AHO: The reason this statement was made is for the purpose of future withdrawals, it is not whether the present withdrawal does in fact exceed or did ever exceed the annual recharge, but further applications may exceed that recharge and that is the primary purpose of the study that is being made at the present time.

MR. WILSON: Well, I am going to waive my opening [20] statement except to make an observation that it is our rather general understanding that with the total appropriation of water by Spring Meadows, Inc., and other users of water does not exceed and is within the perennial recharge of the annual yield. Now, I appreciate there has not been any evidence offered, except for the statement offered by Mr. Aho, Counsel for the Government, but the position is clear that it is our understanding and our position, based upon the information that we have—

MR. WESTERGARD: Well, you may proceed, Mr. Wilson, if you desire. [21]

* * *

MR. WILSON: Well, I assume that Protestant will make his statement first.

MR. AHO: Well, all right.

I believe that the evidence presented here this morning and available to the State Engineer from matters which are of record in his office indicate quite clearly, there is inadequate information available at the present time, to allow any more applications in this basin. As a matter of fact, although the Department of Interior has received wholehearted cooperation from Spring Meadows, Inc., we had to do quite a bit of arging, I understand, to finally get the meters installed on the wells in order to get accurate records.

As Mr. Barnett pointed out this morning, those meters were not installed until last month, November, 1970. At the present time only a few of those wells are pumping from which you can gather data. Now, from the meters that are on the non-pumping wells you are not getting any data from them.

In view of the fact that there is insufficient information available at this time on the Ash Meadows Basin, on behalf of the Protestant, the National Park Service, we urge the State Engineer most strongly to at least defer action on the applications until this information is brought in to [66] him so that he can make a proper decision on these applications and rather than leaving the matter open for an indefinite time, and I may be sticking my neck out as far as the Interior Department is concerned, but I would also recommend that the State Engineer put a time limit upon or within which

the Interior Department may make presentation of the information for the use by the State Engineer to make that decision. I would recommend that he give the Protestant, the Interior Department, until January 1, 1972, to supply this information, and I would recommend that the State Engineer advise the Department that unless that information is delivered to him by January 1, 1972, he would be inclined to make whatever decision appears fit to him.

Thank you.

MR. WILSON: If the Chair please, I don't want to make a long statement but this, I suppose, is a rather classic case in which the Protestant comes before the Engineer and says, "We want to protest but we have not established and don't have the grounds upon which we can protest and we would like some more time to develop that ground. If we don't, fine, then you can grant the application justified on the basis of the presently existing study which has been proposed."

We would ask that the applications be granted and if I may digress for just a minute, this is a classic case of a landowner who came in to the area and made substantial [67] investment back in 1966 and 1967 who had the encouragement of the government and made his investment and has developed the land and has converted that development into a valuable economic asset for this State and for this particular County, a substantial ranching operation.

Along the way it was discovered that there resides in that range a species of fish which may or may not be affected by the pumping of water that is necessary for the completion of the agricultural project. This is not a case of a landowner coming in despite the

national asset and developing in spite of the harm it might inflict, this is a case of a landowner develops his property and then suddenly finds that his ranching operation may ultimately be in conflict with the water supply in the habitat of those fish.

The Department of the Interior as late as November, 1968, was encouraging and promoting agricultural development in the Amargosa Valley. They put out an interim report of the inland basin projects, Amargosa Project, Nevada-California, November, 1968, and talking about the feasibility and potential agricultural development in that valley, and parenthetically speaking, the report concerns the management, conservation of the water, development of the water supply and the development of agricultural and industrial areas.

That, mind you, was in 1968 whereas the government now is talking about a monument that was established in 1952 [68] about which it wants to assert a water right of sorts for the preservation of a fish habitat.

The government reached various conclusions in the course of its report and one appears on page six where it cites the value to the local economic situation, growth, and tax base of a portion of Southern Nevada. It goes on even further and states on page six that in order to develop the potential projects it may be necessary to revise the existing State ground water laws to permit the granting of more water for the project in this area. Now, that is the formal view of the Department of Interior at this time, long after the establishment of the pupfish monument.

Now, it talks further about the annual recharge, on page 39, of the Amargosa Valley and it makes a statement that there is about 24,000 acre feet per year

and the report contains a letter from a Department of Interior official, Bureau of Sports Fisheries, which is dated June 6, which is found in that particular report at page 46, and it discusses the possible benefits or lack of benefits to the wildlife in the area.

MR. AHO: What is the date of that letter?

MR. WILSON: June 6th.

MR. AHO: What year.

MR. WILSON: 1967.

This letters states, "We are concerned with the [69] possible effects of the projects on the desert bighorn sheep which are present in the nearby Death Valley Monument. These sheep are dependent upon the natural springs and seeps for their drinking water. If any of these sources of drinking water dry up due to the lowering of the water table related to pumping of irrigation water for the project, artificial watering devices should be provided to compensate for the loss of natural drinking water sources of the sheep."

"There would be no benefits associated with fish."

Now, there I don't know if they refer to the species of pupfish or not, but at this time they do not seem to be worried about the effect of the withdrawal of water in that area.

The point of this is simply to emphasize that apparently there seems to be a rather lately-discovered problem in which a rancher has come in and made an investment in hopes of making an economic contribution to the State and along the way it was discovered that we are involved with a biological phenomena, Cyprinodon diabolis, and that those fish may become endangered. The government, evidently, did not know

about this or, if it did, it ignored it, and, or at least part of the government and at this time let me say parenthetically that those agencies of the federal government here in Nevada and the State agencies which have been involved have offered Spring Meadows every cooperation and have been [70] frank in all of their dealings with Spring Meadows, Inc., for which they have got a great deal of appreciation from Spring Meadows.

The problem appears to be that we cannot bring the Interior Department, at least as it sits in Washington, D.C., to the table to sit down and try to resolve this problem. The first pupfish symposium which Spring Meadows participated in on this problem was last May, 1970, and there was a frank discussion of the problem and on June 23, 1970, the Desert Research Institute submitted a proposal to try and define what that problem is and try to find which wells may or may not effect Devil's Hole.

Now, it is generally recognized that it is not a hydrogeological problem, so to speak, it is a hydrological problem because we are dealing with the reduction of the static water level. When we view the extremely small fluctuation at Devil's Hole and its material and relevant cause, the biological circumstances at Devil's Hole itself, the fluctuations of the water level at Devil's Hole and so forth, we can't even say that the pumping generally is the cause to any degree for those fluctuations, simply because there has been pumping of water by Spring Meadows, and I submit that the total use of water in the Amargosa-Ash Meadows sub-Basins are within the perennial yield or the perennial recharge. So the problem is not caused by the use of water, it is a problem, really apart [71] from

the water and if the government is to say that we insist upon maintaining the static water level in Devil's Hole it is going to mean that those people who own water rights in the basin are not going to be able to use them, not because their use of the water is interfering with the traditional government's water rights but that because that water in Devil's Hole is going to fluctuate to some degree and will have some biological consequence, if not hydrological consequence, and that is a different kind of ball game.

Now, the complainant is not the representative of the Department of Interior in the State or even in the region, it is the Department of Interior in Washington, D.C. On June 23rd of 1970, the Desert Research Institute submitted a proposal, after conferring with Spring Meadows, to put together some kind of a program, in cooperation with Spring Meadows and to supply the pertinent material to try to find out which wells might be responsible and to discover the biological effects of these minor fluctuations.

Back on July 11th, the Desert Research Institute made a proposal dated June 23rd and a series of rather specific steps were proposed. These involved the collection of data referred to today, the installation of parshal flumes and meters on each well and try to get some kind of a program underway immediately to get some information immediately and asked Spring Meadows to voluntarily modify its well program [72] and convert its irrigation system plans so they would be more completely able to study the biological effect on Devil's Hole. The only reply that was received was the acknowledgment of the receipt of the letter and that the statement was made that the government was going to use the United States Geological Survey to make

the study, but in an effort to get things moving, Spring Meadows, Inc., went ahead and on July 3, bought the meters, with their own money bought the meters, and placed these meters on the wells.

On July 10th the parshal flumes were received and Spring Meadows then went ahead and installed them. These things have been installed over a period of time and with the help of Spring Meadows, but for quite a period of time that equipment was stored, but the parshal flumes and gauges are now installed and the last of the meters were installed finally, last month.

Desert Research Institute submitted another proposal, I think in October, and that is the one that is under consideration today. We are not adverse to the conduct of studies, but frankly up to this point we have not had really an adversary relationship. We have attempted to enter into a kind of working partnership to get this problem resolved but, because of the adversary nature of this matter today and the issue as presented by the Protestant, I am constrained to say that we have enjoyed excellent cooperation and have cooperated with [73] the local and federal and State agencies. Frankly, I suspect that the Department of Interior would like us to wait the problem to death and not come to the table and sit down and talk. They are not concerned with any finding we might get, they just want to let it go and try to draw it out until the public is aroused and starts some crusade to save the pupfish.

Now, if I sound incensed about this it is because of the lack of the government, the Interior Department, from coming to the table to talk about the problem. Frankly, it serves the government ill, it seems to me, to wait and wait and finally when we have to take

some action, not just for the development of new land but in a substantial measure these applications are applications for at least the initial approval of permits for operating wells upon which the ranch relies to irrigate land presently under irrigation, and I think this was because of an engineering problem which arose because of the mistake made by another engineer, not Mr. Engstrom, which had been engaged by Spring Meadows to administer the filing of the applications. The applications that were filed on these wells were on the wrong locations and the wells were dug in a different location than that applied for and now the Applicant has put crops on the land and these new applications are merely to correct a mistake of an engineer and we have the testimony of an engineer today, here, because these wells [74] have to be approved and have not been and they are wells upon which we presently rely in a substantial measure to irrigate the land presently under cultivation.

So here, we have come a rather long way. The evidence is clear of the economic contribution that Spring Meadows has made to the State and it is not trying to disregard those fish, indeed, it has gone out of the way and spent its own money, paid engineers and all of these pump people, lawyers, to try and sit down and try to work out some kind of a situation to convert the water management program to work with the Desert Research Institute and U.S.G.S., in devising something to solve the problem and we have yet to get the Interior Department to sit down at a table with us and talk about what is going to be necessary for the ultimate solution to this problem and convert to a surface water management system, by Spring Meadows, which will govern and provide for irrigation methods of storing surface water and using supplemental wells which are not going to endanger the fish habitat. But they have not done that, they come in and here and object to our applications. We cannot wait, we have got to have the applications reviewed. The Engineer knows that there is a time limit on the applications and the ranch cannot live without water and the government is not in a position to assert, and apparently does not resist the request but asserts that the withdrawal exceeds the perennial recharge, but they [75] have no basis for that statement, and in that case, I suggest that we are not interfering with the government's water rights because the government's witness himself stated that the lowering of the water level at any point of diversion is not unreasonable.

Now, that was his precise statement and that is the statutory requirement with respect to the appropriation of water from an underground well.

Now, if the Engineer please, I am going to ask that the applications be granted, not in spite of a study, really, but one, because we need to have them granted and hopefully in granting these applications it will give the Interior Department a motivation to move and to sit down with us and discuss the problems, and that way will realize that they cannot just sit by until it goes away or Spring Meadows picks up the full bill for it.

I ask that the applications be granted.

MR. AHO: May I reply briefly?

MR. WESTERGARD: Yes.

MR. AHO: He questions my statement that Devil's Hole was added to the Death Valley Monument in

1952, primarily to protect the pupfish. To counter that allegation I would like to offer a copy of President Harry S. Truman's Proclamation No. 2961 establishing Devil's Hole as a part of the Death Valley Monument and the State Engineer can draw his own [76] conclusions as to whether or not the preservation of pupfish was the concern in the establishment of Devil's Hole.

Secondly, Mr. Wilson made quite a strong allusion to the position of the Department of Interior coming in here at this late date and saying give us another year or two before you take any action. In other words, we have been dragging our feet, give us another two years to drag our feet. All we are saying is that insufficient information is available and I think that that is the decision for the State Engineer to make as to whether his office, at the present time, has sufficient information. If he does feel it does not have, then I think it would be viable for all parties concerned to wait until the studies that I have mentioned have been completed and analyzed. It is true, perhaps, that there has been some foot dragging, is another problem back in Washington, but I think a strongly aroused public opinion to save the pupfish has started and I think that the State Engineers have been under these pressures from that source as well as the Department of Interior. I am quite sure that an aroused public opinion now will force Washington officially to move on the problem and I think I can assure Mr. Wilson that there will be no foot dragging on the problem.

I believe that if the State Engineer feels that a period of waiting be granted, I recommend that he strongly advise the Department of Interior in Washington that he is [77] only going to wait until such-and-

such a day to get that information; otherwise, he will take what action he feels the case merits.

I will rest.

MR. WILSON: Let me reply to that statement. One, the remarks regarding the decision being delayed until a January 1, 1972, deadline for study for a position to try to be formulated by the Interior Department. They can certainly recognize a notification back there on the Potomac, but I would caution you, Mr. Westergard, not to draw the inference from the comments here today that the success or the continuation of that study is going to depend upon the postponement of these applications, or it is going to be frustrated if these applications are going to be granted, that is not the case. That is not the case at all, this study is going ahead whether the applications are granted or not and the study was proposed and was not joined in by us, frankly, with the object of frustrating the applications themselves.

This is something that is needed for the entire area, not just Ash Meadows sub-Basin, but the Amargosa basin as well. This study will go forward whether or not the applications are granted; so let's not make the mistake of thinking that if these applications are granted the studies are moot, they are not. I challenge the government, frankly, well—strike that. [78]

I think that the indications are that the use of water is within the annual yield.

This includes the present pumping by the Applicant of the subject wells. That included in the present use of the water, I submit, is within the annual yield or the perennial recharge. Clearly, we are not lowering the water table by the mining of water. If that is the fact,

it is clear that we need that water and will be severely prejudiced without it, and I will submit it.

MR. AHO: Do you stipulate to the admission of Harry S. Truman's Proclamation or can the Engineer take judicial notice?

MR. WILSON: Yes, and I will like to also submit to the Engineer the interim report, Inland Basin Project, Amargosa Project, Nevada-California, of the United States Department of Interior, Bureau of Reclamation, and ask that it be recognized as a part of this record.

MR. AHO: All right.

MR. WESTERGARD: I don't think it is necessary to accept the Inland Basin report, we will take notice of it; however, a copy of the Proclamation will be admitted as Exhibit No. 1 for the Protestant.

We will be in recess for 10 minutes.

(Recess at 12:00 noon.)

(At 12:10 o'clock p.m., the hearing was called to order.) [79]

MR. WESTERGARD: We will be back in session.

At the recess the matter stood submitted, this was my understanding. Now, if there is anything else to be presented that you want a ruling on as far as further procedure, I would be glad to establish it in the record. If not, I intend to proceed.

MR. AHO: In view of the fact of the Endangered Species Act, I would like to call Dale Lockhart, Nevada Fish and Game Commission, a regional assistant for the fisheries, an official of the Fish and Game Commission, with reference to the protection of the pupfish.

MR. WILSON: I don't think there is any question about the statute regarding the endangered species, that is not at issue before the State Engineer. This is not a proper hearing for that. That would probably be the only statement that Mr. Lockhart could offer and I will accept that.

MR. WESTERGARD: The material that has been submitted by the State Endangered Species Committee has already been made a matter of record, it is available, and I personally reviewed it, as has my staff and we are well aware of it.

MR. AHO: You do not wish to hear from a representative of the State Fish & Game Commission?

MR. WESTERGARD: Well, I didn't think—I believe that the statutes have established a procedure for a hearing and to present it in this hearing would be objectionable. This has [80] been the subject of a couple of symposiums of which we are well aware. I know of no precedents in the matter and with that I will deny the request to re-open the hearing at this time and proceed.

I think that the record should reflect a brief history that has not been mentioned in the testimony and that is going to the point of an order that was issued by myself as State Engineer on May 5, 1970. It was issued to the Spring Meadows, Incorporated, and as I say it is a matter of our records but it is an essential portion of this order. I think it should be read into the record and it is as follows:

> "You are hereby notified and ordered to cease and thereafter desist from illegally diverting water pending full compliance with the provisions of the Nevada Water Law."

That is a direct quotation from the order.

Subsequent to this time an action was filed by Spring Meadows and a stay order was issued by the District Judge having jurisdiction, eventually causing a stay against any further action on our part to preclude the pumpage from those wells. The point in giving this history is that the issue now, I think, is—well, let me put it this way, I think that a determination is mandatory, not only in view of this previous action but in view of the fact that I think that the people involved on both sides are entitled, in fact, to a [81] decision soon. You know when that decision has to be and for that reason I am going to overrule the request of the government through Mr. Aho for an extension of time in making a determination on this matter. In this vein I do feel that through the information we have available in our records and through the expert testimony that was given here today and through the arguments, very frankly, there is no question in my mind what decision has to be made, and that again is my determination. And the reason for my determination is that further postponement of action is not in order.

There has been only brief reference, I believe it was by Mr. Wilson, he referred to an assertion of a federal water right. There is no record of a water right on Devil's Hole. I mention that because this is one of the criteria that the State Engineer must consider in making a decision, the possible effect on existing water rights. There are no water rights on Devil's Hole, so we will not pursue that any further. The statute, as has been pointed out several times this morning, provides that any appropriator must expect a reasonable lowering of the water table and I think the testimony, the expert

testimony was to the fact that there have not been an unreasonable lowering of the water table. Evidence to the contrary has not been submitted by the government, so the first criteria, then, effect on existing water rights, it is my ruling that the evidence before us in the case that [82] additional pumping under the proposed applications would not adversely affect existing water rights.

Another criteria in water law is that there must be an intent to place the water to a beneficial use and I think that the development that exists out there and the explanation of what was proposed for the future unquestionably indicates that there is an intent on behalf of the Applicant to place the water to beneficial use.

Another question on which there was considerable testimony was that of water availability. That is a primary criteria that must be considered. It is our finding that there is, in fact, water available for appropriation under these applications.

The final criteria that must be considered, then, is the effect or consideration of the public interest by prolonging a decision in this matter, or by, in fact, denying the proposed applications, which would essentially place a moratorium on the development of a large segment of Nye County. I don't think that the radius or extent of the area that might be considered necessary to preclude further development was even defined or no attempt was even made to define it, but I think, unquestionably, a postponement or denial would, in fact, be a moratorium not only on the people involved here but on numerous third parties who may in fact have some intent of development somewhere within the Ash [83] Meadows area. I think that

a moratorium in a large segment of the State, or a segment of the State is certainly not in the public interest. I think that the State and the individuals involved are entitled to their day to present whatever they wish to present to enable them to proceed with any development that they are seeking.

There was considerable testimony on the economic and financial impact of the Spring Meadows development. I think that in an area the size of Nye County, it certainly must be recognized that the revenue to the County and the State from that development again is in the public interest.

Considering these criteria and unfortunately or fortunately, I think, there have been pressures, but pressures do not give me the prerogative of waiving the basic considerations set forth by the Nevada Water Law and it is, therefore, my ruling that the protest to the applications that are the subject of this hearing are overruled and the applications will be issued subject to existing rights, upon payment of statutory permit fees.

I don't feel that I have the prerogative to make recommendations nor do I have the prerogative to include it as a part of this decision, that further detailed studies should be conducted, but I think the proposals that have been advanced by both parties are certainly something that should be pursued. But, although I won't put it in the form of a [84] recommendation, I will certainly concur that anything that can be developed to insure the best possible management of the water resources should be accomplished to the fullest extent possible within the confines of the Nevada Water Law.

Now, if there are to be appeals to this decision filed, the statute requires that they be within 30 days of the rendition of the order and that will be 30 days from today's date.

MR. AHO: While we are still on the record, I notice you made no reference to the Endangered Species Act. Was any consideration given to that by the State Engineer?

MR. WESTERGARD: Yes, I considered that, yes, I did. And I don't interpret the Endangered Species Act to require the maintenance of any given levels under any given situation and I think that that is the only way it could be applied here, if it were in fact applicable. [85]

* * *

State of Nevada, County of Clark—ss.

I. J. V. BROWER, Court Reporter, hereby certify that I took down in shorthand all of the proceedings had in this matter and that thereafter said notes were transcribed into typewriting at and under my direction and supervision and that the foregoing transcript constitutes a full, true and accurate record of the proceedings had.

/s/ J. V. Brower
J. V. BROWER, Court Reporter. [86]

14. Defendant's 1972 Exhibit B, Symposium on Rare and Endangered Fishes of the Death Valley System.

The Rare and Endangered Fishes of the Death Valley System—A Summary of the Proceedings of a Symposium Relating to Their Protection and Preservation

By
Edwin P. Pister
California Department of Fish and Game
Symposium Coordinator

Held at National Park Service Headquarters
Furnace Creek, California
November 18 and 19, 1969
Submitted for publication on
February 18, 1970

Preface

Shortly after the conclusion of the Death Valley Symposium, the Los Angeles office of the California Department of Fish and Game issued the following release to all news media in Southern California. This suffices admirably as an abstract of what occurred there.

December 1, 1969
For Immediate Release

WAY SOUGHT TO SAVE
RARE DESERT FISHES

While a thousand persons attended the Governor's Conference on California's Changing Environment, held recently in Los Angeles, an alarmed team of eminent life scientists was in the field, 300 miles away, mounting an attack on an acute and sig-

nificantly related problem in environmental survival.

Forty-five of the nation's leading ecologists, zoologists, biologists, resources managers and public land and water administrators made up the task force, using Death Valley National Monument headquarters as their command post.

Working two days and nights in session and in the field, they formed battle lines to save from extinction some of the nation's rarest and most endangered life forms—the ancient but little-known desert fishes of the Death Valley drainage system.

At least one of the fish species has somehow developed the ability to survive and reproduce in water up to 100 degrees in temperature, six times as saline as sea water, and with very little oxygen content.

The scientists believe that within the unique fishes, now threatened with extinction by man, may lie a biological key to man's adaptation and survival in his own changing environment.

Involved are six species of the colorful desert pupfish, hardly more than an inch long when full grown, and the unheralded Mojave chub—all of which evolved following the Pleistocene ice age and are the last of their species on earth.

When their prehistoric lakes dried up, the fishes adapted and survive in small, isolated, warm-water springs that still flow in North America's most extreme desert environment. The total of some of the separate species is confined to one or two bathtub-size pools.

Now, well drilling and the pumping of springs and the underground for new and planned agricultural developments within the Death Valley drainage system are on the brink of wiping out the fishes. At least two species have already been lost.

Coordinated by California's Department of Fish and Game, the desert conference drew an impressive array of talent and knowledge.

Included were scientists and specialists from National Park Service headquarters in Washington, D. C., U.S. Fish and Wildlife Service and Bureau of Land Management regional headquarters in Portland, Ore., Scripps Institute at La Jolla, the State universities and colleges of Michigan, California, Nevada and Arizona, the California and Nevada Departments of Fish and Game, regional officials of concerned Federal agencies, and informed conservationists from the private sector.

Their first accomplishment was the cataloging of the location, size, limnology, ownership and development status of every known water in which the endangered fishes are still living. Included are waters in Death Valley, Owens Valley and the Mojave Basin in California, and the Amargosa Valley in California and Nevada.

Priority listings of the most endangered species and waters followed, and from those listings a plan of action was worked out. Included are administrative action to hopefully save the rare fishes in their remaining, original habitat, and the transplanting of some of the fishes into suitable, alternate waters for temporary sanctuary.

My first thought in reporting on the symposium was to list in detail the points made by the various panel participants. However, I felt that to do this would result in a rather cumbersome volume which might well tend to defeat the basic purpose of our meeting: the formulation and initiation of an action plan designed to preserve the various species and their habitats. Consequently, I have decided instead to summarize briefly each panel discussion and list in some detail the action plan and the arrangements necessary to bring it to a successful conclusion.

It is a natural tendency, when considering the problems of environmental protection and preservation in the face of almost unbelievable social and technocratic problems, to become unnecessarily pessimistic in discussing a means of overcoming them. If those of us who are concerned with these problems take this attitude, not only the Death Valley fishes, but mankind itself, face extinction.

Rather, I prefer to take the attitude that, if man really wants to overcome these problems and is willing to sacrifice accordingly to do so, nearly anything is possible. In effect, if we are able to muster the necessary finances and technology to place an astronaut on the moon, we most certainly can devise a means of preserving in acceptable condition not only pupfish habitat but the remainder of the earth's environment as well. It is within this philosophy that the symposium was initially conceived at a meeting in Death Valley during April, 1969. It is with this same philosophy that we must approach our current problems of environmental protection if we are to be successful in solving them. In the long run, things like preserving pupfish are far more

important than running a successful space program. For if we fail in the former, our spaceships may well, at *some* future date, find themselves with nothing to return to.

Summary

Following an introduction and welcome by Superintendent Robert Murphy of Death Valley National Monument, the various agenda items were discussed, as summarized below. A list of those in attendance is appended.

Tuesday, November 18.

8:00 a.m. Current status of the various species, with a priority listing of those most endangered.

Chairman: Dr. Robert R. Miller, University of Michigan

Panel Members: Dr. James Deacon, University of Nevada, Las Vegas

Dr. David Greenfield, Calif. State College, Fullerton

Dr. Carl L. Hubbs, Scripps Institution of Oceanography

Discussion:

Prior to 1900, the native fish fauna of the Death Valley System had not been significantly altered by man. Since that time, conditions have changed drastically in locations throughout the area. Instrumental here were the introduction of mosquitofish (*Gambusia affinis*), water expert from the lower Owens Valley by the City of Los Angeles, the introduction of largemouth black bass (*Micropterus salmoides*) and brown trout (*Salmo trutta*) into various portions of the drainage and, most recently, the development of large-scale agricultural operations in portions of Nye County, Nevada.

Of the various factors listed, the latter ranks with the introduction of *Gambusia* as the most detrimental and, if carried to an extreme, could very likely lower the water table of the Ash Meadows area to a point where all remaining habitat will be eliminated.

The first step toward habitat protection in this area was the establishment in 1952 of Devil's Hole as part of Death Valley National Monument. Interestingly, this was done ostensibly because of the unique travertine limestone formations, but not to preserve *Cyprinodon diabolis,* the unique fish inhabitant.

Following the symposium, Bob Miller summarized the current status of the Death Valley System fishes in a report to the National Park Service as follows:

Survival of Fish Populations

The fishes inhabiting the Death Valley System—which includes the drainage basins of Owens River, Mohave River, Amargosa River, and Pahrump Valley, in California and Nevada—comprise 11 species in 3 families: the minnows (1 dace and 2 chubs), suckers (1 species), and killifishes (5 pupfishes, genus *Cyprinodon,* 2 killifishes, genus *Empetrichthys*). As of the date of the symposium one full species, the Ash Meadows killifish (*Empetrichthys merriami*) and one subspecies, the Shoshone pupfish (*Cyprinodon nevadensis shoshone*), are extinct; the status of the Tecopa pupfish (*Cyprinodon nevadensis calidae*) is uncertain, but it too may be gone. Man is directly or indirectly responsible for the loss of these fishes.

Other populations of *Cyprinodon nevadensis* are badly depleted and some are seriously endan-

gered. The Pahrump Valley killifish (*Empetrichthys latos*) is in critical condition—an entire genus threatened with extinction. Even the Devil's Hole pupfish (*Cyprinodon diabolis*), protected within a detached part of Death Valley National Monument, is endangered by the proposed sinking and pumping of a well within feet of the monument boundary. (A 1963 U.S. Geological Survey report indicates that the aquifer feeding Devil's Hole, the sole abode of this unique species, could be seriously altered within one year after pumping commences.)

Below Tecopa, and especially in Death Valley proper, the native fish populations appear to be in good condition as of this writing. Proposed development of the Amargosa River (see end of report) however, could change this, thereby threatening ecosystems in Death Valley National Monument.

Priority Listing of Endangered Species

In order to propose an action program designed to preserve and maintain endangered fishes and their aquatic ecosystems, it is necessary to identify the threatened forms and to arrange them by priority. This listing follows:

1. Pahrump killifish, *Empetrichythys latos*. Originally there were 2 living species in this genus but now only 1 survives. It is therefore the most critically threatened fish in the Death Valley System since the survival of an entire genus is in jeopardy. The only population, reduced to a handful of individuals, is barely existing at Manse Ranch, Pahrump Valley, Nevada.

2. Devil's Hole pupfish, *Cyprinodon diabolis*. This species is endangered because of its very restricted habitat—scarcely as large as a backyard swimming pool—and low population (about 200 to 700 individuals, annual fluctuation). It is now further threatened by well pumping (the device already installed but not functional as of Nov. 18, 1969) at the very edge of the boundary of Death Valley National Monument.
3. Owens pupfish, *Cyprinodon radiosus*. This species, now restricted to Fish Slough, Owens Valley, California, was nearly lost last summer when much of its known remaining habitat dried; alert action by Bob Brown of UCLA, aided by Phil Pister, probably saved the fish. The Owens Valley Native Fish Sanctuary in Fish Slough was completed shortly before the Death Valley Symposium and will be ready for occupancy after the exotic species have been eliminated. Post-conference investigation of BLM spring, also in Fish Slough, proposed as a supplemental refuge, revealed that the Owens pupfish survives there as it probably does also in several other places in the Fish Slough region. Hopefully, by 1971, this fish may be removed from the world list of endangered freshwater fishes (Miller, 1969).
4. Nevada pupfish, *Cyprinodon nevadensis mionectes*. Many populations of this fish, which is confined to Ash Meadows, Nevada, have already been lost and others are threatened by agricultural development, especially by excessive (and presumably illegal) pumping and also by physical destruction (by mechanized technocracy) of natural habitats. Springs so destroyed

may be lost forever. In view of the post-conference information on the Owens pupfish, the Nevada pupfish probably deserves a higher priority listing.

5. Mohave chub, *Gila* (*Siphateles*) *mohavensis*. Unquestioned pure populations of this species now appear to be restricted to Lake Tuendae, the spring-fed pond at Zzyzx Resort on the west side of Soda (Dry) Lake about 9 miles south of Baker, San Bernardino County, California.
6. Tecopa pupfish, *Cyprinodon nevadensis calidae*. The current status of this subspecies is uncertain, and additional field work and further taxonomic analyses of new material are needed to clarify its status. Originally it was known only from the outlets of Tecopa Hot Springs, Inyo County, California, where it now appears to be extinct.
7. Warm spring pupfish, *Cyprinodon nevadensis pectoralis*. The type locality of this fish in Ash Meadows, Nevada, has been set aside by BLM as a refuge, with an artificial pond outside of the fenced habitat for public viewing of the subspecies. Its very restricted range places this fish in the endangered category.

Undetermined Status of Endangered Species

It was thought advisable not to give priority rating to several species of Owens Valley fishes whose current population sizes are unknown, but which have decreased markedly in abundance in past decades. These are:

1. Owens chub, *Gila* (*Siphateles*) sp. D. W. Greenfield reported that he has been unable to find

this fish in Owens Valley proper (where it was formerly common), but he did locate a population in the Lake Crowley (Long Valley) part of Owens River; a chub has also been taken by UCLA workers and the California Department of Fish and Game in the gorge of Owens River below Lake Crowley as well as in the reservoir itself. The identity of these chubs has not been determined but will be soon. This species and the two that follow are to be reintroduced in 1970 into the Owens Valley Native Fish Sanctuary in Fish Slough north of Bishop.

2. Speckled dace, *Rhinichthys osculus*. The status of the Owens River populations is unknown.
3. Owens sucker, *Catostomus* sp. This fish still survives throughout much of Owens River.

9:45 a.m. Progress report on existing and planned sanctuaries.

Chairman: Dr. James Deacon, University of Nevada, Las Vegas.

Panel Members: Dr. Wendell Minckley, Arizona State University, Tempe.

Mr. James St. Amant, California Department of Fish and Game, Los Angeles.

Mr. Philip Pister, California Department of Fish and Game, Bishop.

Mr. Robert Borovicka, Bureau of Land Management, Portland, Oregon.

Mr. James Yoakum, Bureau of Land Management, Reno, Nevada.

Mr. Lewis Myers, Bureau of Land Management, Las Vegas, Nevada.

Discussion:

Wendell Minckley has been successful in maintaining populations of several species (not *C. Diabolis*) in concrete ponds at Arizona State University. These populations have existed without either significant care or feeding in temperatures that drop to as low as 34-35°F. This lends cause for optimism concerning the creation of artificial refugia. Nevertheless, it was the consensus of the group that every effort should be made to maintain these fishes in their native environments and to resort to artificial refugia only if absolutely necessary to maintain the species.

The Bureau of Land Management reported that all federal conservation agencies were directed by Congress (under the rare and endangered species act) in 1966, to concern themselves with the preservation of rare and endangered species. Following this, the Nevada Fish and Game Commission and University of Nevada at Las Vegas requested BLM to initiate a cooperative land management and conservation program. Under this program, the Fish and Game Commission and University determine which species need attention, then habitat management plans are developed by BLM. Under the law, BLM manages the habitat but not the fish and wildlife species existing therein. As part of their general investigations under this cooperative arrangement, BLM has located 15-20 warm springs in other areas of Nevada as possibilities for transplant sites. School and Jackrabbit Springs have already been set aside as sanctuary sites.

Discussion was again held emphasizing the need for preserving the original habitat. The disadvantages of enlarging existing habitats were enumerated. In this

connection, when School Spring was recently set aside as a sanctuary, it was enlarged to duplicate what originally existed there.

The evolution of the Owens Valley Native Fish Sanctuary north of Bishop was described. Completed in October, 1969, this five-acre pond will provide refuge not only for *Cyprinodon radiosus,* but for the other three native Owens Valley species (*Rhinichthys osculus, Catostomus* sp., and *Gila* sp.) as well. An additional refugium, planned at BLM Spring on the east side of Fish Slough, was also described. The plight of *Cyprinodon radiosus* during the summer of 1969 was described in detail.

Because of ever-increasing interest by the academic community in the ecology of the Owens Valley, the idea of requesting Ecological Reserve status for the entire Fish Slough area is worthy of further consideration. The Fish Slough drainage is the only portion of the Owens Valley which remains essentially unaffected by man's activities.

Lew Myers, BLM District Wildlife Specialist from Las Vegas, reviewed inventory work done on rare and endangered species habitats by BLM in 1967 which resulted in a "first priority" classification for the native fishes in Ash Meadows. Habitat management plans were completed in 1968 for Jackrabbit and School springs. At that time Jackrabbit Spring was in good condition but contained exotic species. School Spring was in poor condition, with most of the habitat destroyed through overuse by livestock, waste of water in non-habitat areas, and an excess of aquatic plants.

The habitat management plan for Jackrabbit Spring recommended barriers to exclude exotic species, fences to

exclude livestock, and additional ponds to allow viewing by the public.

The habitat management plan for School Spring called for protection and complete fencing of spring areas and the construction of another pond to utilize wasted water. This pond provides additional habitat and facilities viewing by the public. A barrier was installed in the pond water supply pipe to prevent fish from moving between the first and second ponds.

In the case of both springs, BLM owns the land but private interests own the water rights. BLM has an agreement for the use of School Spring water for a sanctuary, but no agreement exists for Jackrabbit Spring.

It was further pointed out that about 7 wells have been drilled within 3½ miles of Devil's Hole, and reports indicate that the water level in this area will soon be affected. One well has been drilled within a few hundred yards of Devil's Hole at the edge of the National Monument boundary.

Lew Myers also reported that Ely District of BLM has developed large warmwater pool areas for use as refugia.

Lew's report provided good background information for the afternoon's field trip to Ash Meadows, which he led with the assistance of Dale Lockard of Nevada Fish and Game and Jim Deacon of the University of Nevada at Las Vegas.

1:30 p.m. Field trip to Ash Meadows

Leaders: Mr. Lew Myers, BLM, Las Vegas.
Dr. James Deacon, University of Nevada, Las Vegas.
Mr. Dale Lockard, Nevada Fish and Game Commission, Las Vegas.

The few hours spent on the Ash Meadows tour were more than adequate to point out the immense destruction and alteration of the terrestrial and aquatic habitats resulting from the activities of Spring Meadows, Inc. Several springs have been severely changed and their fish populations either eliminated or placed in extreme jeopardy. Pumping was being carried on directly from Jackrabbit Spring, and all fish life had been destroyed.

Longstreet Spring has been bulldozed and dirt piled up on the banks; and Point of Rocks Spring has a pump located immediately adjacent to it. The pump next to Devil's Hole has already been described.

On the brighter side, Big Spring is largely untouched, and a good possibility exists that it might be purchased by the Nature Conservancy.

Underlying the entire problem, however, is the somber fact that, almost unquestionably, sustained pumping in the Ash Meadows area will ultimately destroy all remaining habitat if continued indefinitely. The only real uncertainty is just when this will occur. Perhaps this item should henceforth receive the majority of our attention.

8:30 p.m. Discussion of current research on Death Valley system endangered species, and additional research desirable for species preservation.

Chairman: Dr. Vladimir Walters, U.C.L.A.

Panel Members: Dr. Robert R. Miller, University of Michigan
Dr. James Deacon, University of Nevada, Las Vegas

Dr. Wendell Minckley, Arizona State University, Tempe

Dr. David Greenfield, Calif. State College, Fullerton

Dr. Robert K. Liu, U.C.L.A.

Dr. James Brown, U.C.L.A.

Mr. James Labounty, U.S. Bureau of Reclamation, Las Vegas

Mr. Robert E. Brown, U.C.L.A.

Discussion:

It was very evident from the discussion that our knowledge of the taxonomy of the Death Valley system fishes greatly exceeds our knowledge of their biology. A minor point of disagreement was resolved concerning the responsibilities of the agencies as opposed to the universities relative to habitat development, research, etc. It was generally agreed, and seems rather obvious, that problems of land use, sanctuary development and similar items should be handled by the public agencies, whereas most research work should be carried on by the academic community. However, close communication and cooperative effort between the two groups is both desirable and necessary if we are to accomplish our goal of species preservation, inasmuch as the power development of habitat and sanctuary areas is completely dependent upon the extent of our knowledge of the species involved.

The following areas of research were discussed and outlined as desirable for species preservation, although the potential for research on *Cyprinodon* is nearly infinite.

1. Interrelationships of the different species of *Cyprinodon*.

2. Cytomorphology (should be included in taxonomic work).
3. Behavioral reactions and interactions of *Cyprinodon* and mollies as related to courtship and feeding.
4. How have these fishes endured for so long in such a restricted habitat? Why and how are they so plastic?
5. Osmoregulation and demographic parameter studies on types of artificially created habitat.

Jim Deacon reported that his current research on the Death Valley fishes is primarily ecological and in the field. Work is being conducted on Salt Creek, Pupfish Marsh, Zzyzx and Saratoga Springs. Taxonomic and feeding habit studies are in progress, and it is likely that a new species will be described from Pupfish Marsh. At Saratoga Springs, population size and structure is being studied in relation to reproductive influences. It has been found that starvation is an important factor in summer months when both populations and degree of activity are at a maximum.

The range of temperature tolerance for populations at Saratoga Springs is from 33-34°F. to 110°F. However, the temperature there does not exceed 95°F. for any significant length of time. Fish are not found active in the marsh at temperatures below 40°F. Below this temperature they burrow in the mud and exist under nearly anaerobic conditions.

Cyprinodon diabolis populations in Devil's Hole fluctuate from about 200 to 700, reaching a maximum near the end of summer. Starvation during periods of maximum population is probably their limiting factor. Their temperature tolerance drops to 8-9°C. (46-48°F.), but they are immobilized at 14°C. (57°F.)

Bob Miller has found a significant difference in the Shoshone Springs populations when comparing fish collected in 1947 and 1969. This was primarily noted in increased pelvic ray counts and rounded body characteristic in collections made in 1969. Collections made in 1947 showed greatly reduced pelvic ray counts and a slab-sided appearance. He concluded that the population presently inhabiting Shoshone Springs is derived from the Amargosa River populations and that *C. n. shoshone* is extinct.

Work has been conducted recently by Dave Greenfield in comparing various species of *Gila: mohavensis, orcutti,* and *snyderi* from Owens Valley. Chromosome numbers were determined as 54 in *snyderi,* 52 in *mohavensis,* and 50 in *orcutti.* These differences have been confirmed by electrophoretic studies of eye lens tissue. Jim LaBounty reported that Cottonball (Pupfish) Marsh *Cyprinodon* are meristically different from *C. salinus* and that they can exist in water ranging from distilled to 6 times sea water. *C. salinus* exhibits a tolerance range of about half this magnitude.

In this connection, Bob Brown's proposal to study the osmoregulatory processes of the genus takes an even greater interest and significance. Part of this study will involve the effect of monovalent and divalent ions on mucus production.

The interest and activity of the various colleges and universities in conducting research on *Cyprinodon* and related species is most heartening. Ultimately, our ability to preserve these fishes may well depend upon the extent of our knowledge concerning them. Hence the desirability of learning as much as possible as quickly as possible.

Adjournment for November 18 at 11:00 p.m.

Wednesday, November 19.

8:00 a.m. Land acquisition costs and funding—the role of non-governmental groups.

Chairman: Mr. Clinton Lostetter, Rare and Endangered Species Coordinator, Bureau of Sport Fisheries and Wildlife, Portland, Oregon.

Panel Members: Mr. Martin Litton, Free-lance writer and Sierra Club Director

Mr. Keith Artz, The Nature Conservancy

Dr. Sterling Bunnell, The Nature Conservancy

Discussion:

Senate bill 11363, which was enacted on November 10, 1969, provides financing for rare and endangered species preservation and prohibits importation and interstate shipments of endangered species. This bill provides a firm basis for rare and endangered species work by the federal government. However, the assistance of other public agencies and private individuals is necessary to get the job done effectively.

Keith Artz and Sterling Bunnell outlined the role of the Nature Conservancy and clarified the mechanics of its operation. Inasmuch as the purchase of the land provides the most certain way to insure habitat preservation, the Nature Conservancy prefers to purchase a given area and then transfer it to a management agency with a revertible clause in the deed. For this purpose, the Nature Conservancy can borrow money (at prime interest plus one percent) with Ford Foundation backing. Where possible, this is done with the intent of ultimately having the land purchased by the governmental

agency involved. This allows the "holding" of desirable lands until the necessary funds can be budgeted through regular channels. The Nature Conservancy recently purchased Furnace Creek Ranch in this manner, and is now awaiting reimbursement from the National Park Service.

Martin Litton pointed out the need for immediate publicity and legal advice to preserve the various Ash Meadows habitats. In this connection, the effect of groundwater exploration in Ash Meadows on the various features of Death Valley (Furnace Creek, Amargosa River, Devil's Gold Course, Badwater, etc.) should be quickly and competently ascertained. Martin has some excellent connections with the news media and will work with them in publicizing the problem.

11:00 a.m. Status report on existing and potential habitats and water sources.

Chairman: Mr. Robert Borovicka, Bureau of Land Management, Portland, Oregon.

Panel Members: Mr. Ed. Smith, BLM, Sacramento
Mr. Bob Jennings, BLM, Bakersfield
Mr. Bill Templeton, BLM, Riverside
Mr. Don Cain, BLM, Ely, Nevada
Mr. Jim LaBounty, Bureau of Reclamation, Las Vegas
Mr. Pete Sanchez, National Park Service, Death Valley
Mr. Dale Lockard, Nevada Fish and Game, Las Vegas
Mr. Phil Pister, California Department of Fish and Game, Bishop

Discussion:

The Multiple Use Act of 1964 changed the basic orientation of BLM, and the California Desert Study has been the first major step by BLM geared toward inventorying and planning for the use of desert lands. This, of course, is basic to acquiring funds for management projects. Initial phases of the study have involved the cooperation of a Park Service team. Of approximately 15 million acres of desert lying within California, over 11 million are administered by BLM. A district ranger concept is being considered, together with interpretive centers in several locations.

The second phase of the Desert Study is currently under consideration in Washington and, if approved, will lead to the third phase which will involve the implementation of planning drafted in the first two phases.

Possible habitat areas at Saline Valley, China Lake Naval Weapons Center, Fish Slough, River Springs, Zzyzx, Piute Springs, Two-Hole Springs, Baker Lake Charcoal Pit, Benton, Keogh's, and Owens Lake (all in California); and Mt. Wheeler and Big Spring (both in Nevada) were discussed in varying degrees of detail.

Many of them present excellent possibilities and will be included for further investigation prior to the next meeting of the group.

Zzyzx Spring is located on the invalid mining claim which will soon come up for review. Final eviction will not occur for some time at best. A management plan will be prepared if the current occupant is evicted.

The use of the Hot Springs on the western slope of Mt. Wheeler shows great promise for reestablishing three

species of rare fishes: The Moapa dace (*Moapa coriacea*), Pahranagat roundtail chub (*Gila robusta jordani*), and Pahrump killifish (*Empetrichthys latos*). A habitat management plan for this area is being given top priority, and refugia should be constructed in 1970 for two or three species.

Nevada Fish and Game is currently corresponding with the owner of Big Spring (Ash Meadows) in an attempt to negotiate a lease or purchase. The Nature Conservancy may also become involved in this venture. In addition, Nevada Fish and Game is inventorying and documenting all water sources containing populations of rare species. One of their problems (which is general) is the infestation of suitable sites with exotic species.

An intriguing idea interjected at this point was the possibility of interesting Howard Hughes in developing a desert museum for rare fishes in the Las Vegas area. Martin Litton will investigate this further.

A review by Jim LaBounty of a Bureau of Reclamation reconnaissance report recently released on the proposed Amargosa River project, reveals that the area currently contemplated covers from six miles north of Devil's Hole northward through Lathrop Wells. The water in this area is suitable for irrigation, as opposed to Ash Meadows water, which is reported to be unsuitable. In the area which Jim described are 92,000 acres of arable land with good underground water supplies. A favorable benefit-cost ratio of 3.6 to 1 has been calculated. A more detailed study has been authorized for the period 1971-74 at a cost of $750,000.

Actual work to date by California Fish and Game has been restricted to Fish Slough, with considerable reconnaissance being conducted in other areas. Ground reconnaissance has been supplemented by a set of aerial photographs of the entire Amargosa River and Death Valley drainage areas which have already been useful in locating additional refugia. Especially promising here is a location near Scotty's Castle which later ground reconnaissance indicated to be apparently suitable for the purpose at hand.

3:00 p.m. Legal bases for protecting existing water sources and habitat.

Chairman: Leonard Fisk, Calif. Dept. of Fish and Game, Sacramento

Panel Members: Mr. Dale Lockard, Nevada Fish and Game, Las Vegas

Mr. Robert Murphy, National Park Service, Death Valley

Mr. William Newman, Nevada Div. of Water Resources, Carson City, Nevada

Mr. Homer Leach, National Park Service, Death Valley

Mr. Orthello Wallis, National Park Service, Washington, D.C.

Mr. Robert Borovicka, BLM, Portland, Oregon

Discussion:

Perhaps one of the best signs of our immaturity as a society (as reflected in conservation legislation) is the problem we face in gaining recognition of fish and wildlife as beneficial uses in water rights matters.

Progress is being made in this direction, but very slowly. Dale Lockard reviewed the current situation in Nevada and was followed by Bill Newman, who gave a brief history of Nevada water law and stated the problems

encountered by a water administrator in the face of stock and agriculture oriented state government. At present, Nevada Fish and Game may protest a water application, but has very little legal basis for having the protest recognized in the courts.

Nevada initially adhered to a strict riparian doctrine which was repudiated in 1885 and changed to a system of prior appropriation. At present, application for water appropriation is made to the State Engineer. The notice of intent is then published followed by a 30-day period for filing protests. The State Engineer researches the application to determine if any prior rights have been infringed upon, and then renders his decision.

The establishment of Death Valley National Monument in 1933 was conditioned upon recognition of existing water rights. The rights of the Park Service and private in-holdings have been perfected. Currently, the Park Service files for water rights and then can issue a secondary water right to a permittee within the Monument. The Natural Landmarks Program was outlined, and its possible value in rare species preservation planning was discussed. This might have value at Manse Spring.

The point was made that land ownership does not necessarily include the water right and that the law of prior appropriation applies in most instances. The states control the water rights, and a determined effort should be made by all states to have fish and wildlife included as a beneficial use of water.

5:00 p.m. Summary and preparation of plan.

Chairman: Mr. Richardson, Calif. Dept. of Fish and Game, Los Angeles
Mr. Pister, Calif. Dept. of Fish and Game, Bishop

Participants: All remaining at session
(About 25 key persons were able to remain for this all-important discussion).

Discussion:

Sufficient data and discussion had now been presented to allow for the preparation of an action plan for species preservation. Although adhering firmly to the concept that every effort should be made to preserve and enhance all existing natural habitat, the group felt it would be wise to establish "money in the bank" refugia while awaiting the results of our current issue with technocracy. Priorities for preservation of the various species are summarized below:

1. *Empetrichthys latos*
2. *Cyprinodon diabolis*
3. *Cyprinodon radiosus*
4. *Cyprinodon nevadensis mionectes*
5. *Gila mohavensis*
6. *Cyprinodon nevadensis calidae*
7. *Cyrpinodon nevadensis pectorialis*

Several species of Owens Valley fishes were not given priorities but were listed for further study to ascertain their status: Owens chub, *Gila* (*Siphateles*) sp.; Owens sucker *Catostomus* sp.; and Specked dace, *Rhinichythys osculus.*

PLAN

1. *Empetrichthys latos,* Pahrump killifish
   a. Jim Deacon will make application for natural landmark status at Manse Spring.
   b. Jim Deacon will coordinate a committee of Lew Myers, Dale Lockard, and himself to investigate spring areas in Nevada as additional refu-

gia for *E. latos*. This committee investigated the spring seepage east of the road from Manse Ranch and found it to be an artesian well located on private land.

c. Lew Myers will check the possibility of using pumped water or spring flow diverted to BLM lands for additional refugia.

d. Phil Pister will coordinate a committee of Ed Smith (or his representative from BLM), Tom Jenkins from the Sierra Nevada Aquatic Research Laboratory of the Bureau of Sport Fisheries and Wildlife, Bob Brown of U.C.L.A., and Vern Burandt of California Fish and Game to determine the feasibility of constructing a refuge at the cold spring at Lower Warm Spring on the east side of Saline Valley.

2. *Cyprinodon diabolis:* Devil's Hole pupfish

a. Phil Pister will coordinate a committee of Ed Smith (or his representative from BLM), Tom Jenkins, Bob Brown and Vern Burandt to construct a refuge at Upper Warm Spring on the east side of Saline Valley.

b. Dale Lockard will check a spring area about seven miles southwest of Denio, Humboldt County, Nevada to determine its suitability for development into a refuge.

c. Leonard Fisk will check with Millard Coots of California Fish and Game concerning warm spring areas about 10 miles east of Susanville, near Wendell.

d. Clint Lostetter and Dale Lockard will check a large pool area at a Nevada State Park near Garlock to determine its suitability for *Cyprinodon diabolis*.

Should the areas referred to prove suitable for the establishment of *C. diabolis*, the persons involved will make every possible effort to create refuges at the earliest possible date.

3. *Cyrprinodon radiosus*, Owens pupfish.

a. Phil Pister will work with Bob Miller and Bob Brown in re-establishing *C. radiosus* into the newly-created Fish Slough sanctuary, probably in June or July of 1970.

b. Phil Pister will work with Ed Smith of BLM to plan construction of another refuge on the east side of Fish Slough at BLM Spring.

c. Bob Miller will write a letter to the State Director of BLM urging construction of a sanctuary at BLM Spring at the earliest possible date.

4. *Cyprinodon nevadensis mionectis*, Ash Meadows pupfish.

a. Keith Artz of the Nature Conservancy is collecting photos and will start work on possibility of acquiring Big Spring through a publicity campaign for fund raising.

b. Dale Lockard and Jim Deacon will, depending upon results under "a" above, attempt to achieve Natural Landmark status for Big Spring.

c. Lew Myers will meet with Spring Meadows, Inc., on November 20 in an attempt to achieve rehabilitation of Jackrabbit Spring.

d. Jim Deacon will arrange for hydrologic survey of Big Spring by a Las Vegas consultant.

e. Vlad. Walters and Jim Brown, working with Jim Deacon and Dale Lockard, will make every effort to keep duplicate populations in

aquaria at U.C.L.A., although doing so successfully involves overcoming some very difficult technical problems.

f. A series of letters expressing general concern over the problem at Ash Meadows and expressing thanks for positive action to date will be sent to Nevada Fish and Game, Nevada State Office of BLM, Nevada Division of Water Resources, Senator Alan Bible, and other legislators. These letters will be drafted by Tina Nappe for Bob Miller's signature.

5. *Gila mohavensis,* Mohave chub.

a. The Mohave chub is now established at Paradise Spa near Las Vegas. Jim Deacon and Dale Lockard will watch over this introduction.

b. Leonard Fisk, Jim St. Amant, and Bill Richardson will investigate habitat and suitability at Lark Seep Lagoon (Naval Weapons Center), South Coast Botanic Garden near Marineland, 1-Hole and 2-Hole Springs, San Felipe Creek in Sentenac Canyon (San Diego County) and Piute Springs. Introductions will be made where feasible.

c. Dave Greenfield of Cal State Fullerton will work with Bill Templeton of BLM and Jim St. Amant and Leonard Fisk of Cal. Fish and Game in watching Zzyzx Spring and will formulate a plan if the current resident, Dr. Springer, is evicted.

6. *Cyprinodon nevadensis calidae,* Tecopa pupfish.

a. Phil Pister and Jim Deacon will check populations in the Tecopa area.

b. A series of specimens will be sent to Bob Miller at Ann Arbor for identification.

c. Further action will be dependent upon Bob Miller's determinations.

7. *Cyprinodon nevadensis pectoralis,* Warm Spring pupfish.

a. BLM has completed a fenced refugium at School Spring, Ash Meadows. Lew Myers, Jim Deacon, and Dale Lockard will investigate the possibility of broadening the School Spring refuge to include Mexican Spring and Scruggs Spring, both of which are on BLM land.

b. Lew Myers is preparing a habitat management plan for the entire Ash Meadows complex.

Summary of assignments:

1. *Empetrichthys latos*

a. Deacon

b. Deacon, Myers, Lockard

c. Myers

d. Pister, Smith, Jenkins, Brown, Burandt

2. *Cyprinodon diabolis*

a. Pister, Smith, Jenkins, Brown, Burandt

b. Lockard

c. Fisk, Coots

d. Lostetter, Lockard

3. *Cyprinodon radiosus*

a. Pister, Miller, Brown

b. Pister, Smith

c. Miller

4. *Cyprinodon nevadensis mionectes*
   a. Artz
   b. Lockard, Deacon
   c. Myers
   d. Deacon
   e. Walters, Brown, Deacon, Lockard
   f. Nappe, Miller
5. *Gila mohavensis*
   a. Deacon, Lockard
   b. Fisk, St. Amant, Richardson
   c. Greenfield, Templeton, St. Amant, Fisk
6. *Cyprinodon nevadensis calidae*
   a. Pister, Deacon
   b. Miller
   c. Miller
7. *Cyprinodon nevadensis pectoralis*
   a. Myers, Deacon, Lockard
   b. Myers

Additional Assignments

1. Martin Litton will serve as publicity coordinator, working with whatever media he feels can best handle the matter of creating a public awareness of the plight of the Death Valley fishes in general and the problems created by Spring Meadows, Inc., in particular. In this connection, any information and progress reports having publicity value should be sent to Martin for his use.
2. Pete Sanchez, Homer Leach, and Bob Murphy will contact USCS concerning the ground water level in Ash Meadows and the effect of pumping

both on the Ash Meadows springs and the water resources within Death Valley National Monument.

3. Dale Lockard will provide Martin Litton with Hughes contacts concerning the Desert Museum concept.
4. Pete Sanchez will contact the operators of Furnace Creek Ranch concerning the use of rotenone to remove *Gumbusia affinis* from the Furnace Creek system. Phil Pister will work with Pete Sanchez in this matter.
5. Bob Miller will prepare a check list of items to be considered in determining whether or not a certain spring area might be suitable for pupfish introduction. This will be of great value to agency field personnel who are unfamiliar with ecological requirements and will reduce the number of areas to be checked by eliminating those which are obviously unsuitable.
6. Phil Pister will continue to serve as coordinator for the interagency plan to preserve the Death Valley fishes. Bob Miller, Jim Deacon, and Bob Borovicka will assist. In this connection, the coordinating committee requests that close communication be continued between all in attendance at the symposium. We ask especially that reports be sent regularly to Phil Pister, Department of Fish and Game, 407 West Line Street, Bishop 93514, as your work on the action plan progresses.
7. Bob Borovicka raised the question of how many individuals of the various Death Valley fishes could safely be removed from their existing habitats, even for valid research purposes. Authority

to grant such requests rests with the fish and game departments of Nevada and California under the laws governing scientific collecting permits. In the case of a request to collect within Death Valley National Monument, an *additional* collector's permit must be obtained from the Park Service.

It was decided that requests to *any* agency to collect *any* of the Death Valley fishes should be forwarded to Phil Pister, who will send copies to Miller, Deacon, and Borovicka for their comments and recommendations. Approval must be unanimous, or the request will be returned to the agency involved with the recommendation that it be denied. However, inasmuch as final approval rests with the agency and not the coordinating committee a recommendation for approval or denial does not guarantee that the agency will act accordingly.

Much of this will seem to constitute unnecessary red-tape to those who wish to collect fish for individual research projects and who regard such collections from an understandably narrow viewpoint. However, recent publicity given to pupfish by the news media, plus increased research demands by the academic community, have resulted in an almost unbelievable number of requests to the three agencies involved. Hopefully, collectors will realize that their request may well be only one of many and, if carried to extremes, could result in the very thing we are trying to prevent: the extinction of certain groups of Death Valley fishes.

The coordinating committee wishes to thank all those who attended the symposium, and in particular those who participated in the panel discussions. We feel the meeting was very successful, in that a vast amount of

knowledge was presented, discussed, and worked into a sound plan for habitat protection and species preservation. However, although we now have a coordinated approach to the problem, we still have a long way to go before we win the battle. Our plan will be no more effective than the amount of time and industry we are willing to devote to it. We are further faced with an agricultural development plan for the Amargosa River basin which is considerably greater than that already in operation at Ash Meadows. We must therefore work hard and remain alert to any plans for additional habitat destruction within the Death Valley system. Of extreme importance will be our ability to communicate the overall problem to the public who, in the final analysis, will decide whether agriculture, pupfish, or a compromise of both will prevail within the Death Valley system.

We wish to extend special thanks to Superintendent Bob Murphy of Death Valley National Monument for making available the excellent meeting facilities at Park Service Headquarters. Much of the success of the meeting is directly attributable to the cooperation of Bob and his staff.

In order to keep our program alive, we have scheduled a similar symposium for November 17 and 18, 1970, at Furnace Creek. At this meeting we shall evaluate progress to date on the action plan, discuss new developments in our search for refuge sites, review the state of affairs at Ash Meadows, and generally reassess our position and the status quo. We are already looking forward to meeting with you again.

APPENDIX

Developments Since Symposium Ended on November 19

1. Lew Myers and Bob Borovicka met with Spring Meadows, Inc. on November 20. At this meeting it was agreed that the pump complex would be removed from Jackrabbit Spring and that they would use only a natural channel to the south of the spring to receive spring flow (the ditch to the west will be restored). Spring Meadows, Inc. will construct a water storage pit at least 300 feet from the spring to receive the full spring flow via the natural channel. This will be used as a pumping pit. The foregoing will allow the restoration of Jackrabbit Spring as pupfish habitat, and *C. n. mionectes* will be reintroduced. Spring Meadows, Inc. still wishes to pump from the well at the corner the Devil's Hole property line. However, BLM stood firm on their decision denying them a right of way for a ditch from the well. BLM further recommended that Spring Meadows, Inc. abandon the well and restore the site.

2. On November 21, Bob Murphy and other Park Service representatives met with Spring Meadows, Inc. specifically concerning the Devil's Hole pump. Because of widely divergent philosophies of the two groups, no agreement was reached. However, Spring Meadows, Inc. indicated its intent to bring the matter before higher authority within the Department of Interior. Nothing further has been heard in this matter.

   Spring Meadows, Inc. apparently is in the process of trying to acquire additional acreage near Devil's Hole. This would tend to strengthen their argument to utilize the existing well and to develop others. Under the circumstances, it would seem appropriate to express individual opinions to the Secretary of Interior indicating concern over the problem and urging his denial of any requests for further development of the area unless it can be conclusively proven that such development will in no way adversely affect the natural resource either at Devil's Hole or within Death Valley itself.

3. Bob Miller and Tina Nappe have been doing an excellent job in communicating with legislators and other influential people and organizations.

4. Bob Miller's summary report to the National Park Service is especially appreciated in view of the difficulties involved in producing this report within such a short time following the close of the symposium.

5. Following the symposium, Boyd Walker sent suckers and chubs taken from the upper Owens River drainage to Carl Hubbs for identification. These were identified as *Catostomus fumeiventris* (MS) and *Gila Snyderi* (MS). If the specimens identified by Dr. Hubbs (which were taken from below Crowley Lake dam) are the same as those existing in Crowley Lake and the Owens River drainage above, they are in sufficient numbers to remove any concern relative to their general abundance. Additional collections have been made and will soon be forwarded to Dr. Miller for identification.

6. Within a few days following the meeting, Sterling Bunnell acquired $1,000.00 to finance the sanc-

tuary at BLM Spring on the east side of Fish Slough. A cooperative agreement between BLM and California Fish and Game is now being drafted to allow construction during the early summer of 1970.

7. Considerable interest in *Cyprinodon* among the general public has resulted from our symposium. This has been evident from a variety of newspaper articles. Martin Litton's article in the November, 1969 "Sunset" has been of immense value in this respect, and we may expect similar response from an article on Death Valley appearing in the January, 1970 "National Geographic".

8. On December 18 Jim St. Amant and Leonard Fisk transferred 150 *Gila Mohavensis* from Zzyzx Spring to Piute Springs, San Bernardino County. Additional investigations were made at One Hole and Two Hole springs, San Bernardino County, to determine their suitability as stocking sites for endangered species. Another transplant of *Gila mohavensis* was made on January 27, when 147 individuals were introduced into a pond located at the Los Angeles County Botanic Garden.

9. In December, Jim Deacon made collections of *Cyprinodon* in small, isolated warm springs near Tecopa Hot Springs and forwarded them to Bob Miller for identification.

10. Sterling Bunnell has arranged for the February, 1970 issue of "Cry California" to be devoted to publicity on the *Cyprinodon* problem.

11. Many new fields have been prepared and new pumps installed in Ash Meadows since the November, 1969 symposium. In correspondence

dated February 16, 1970, Pete Sanchez informed us that an earth fill dam over one-half mile long is being completed northeast of Point of Rocks Spring.

SELECTED REFERENCES RELATING TO THE DEATH VALLEY SYMPOSIUM

California Department of Water Resources

1964. Ground water occurrence and quality, Lahontan region. June, 1964, DWR Bulletin No. 106.1. State Printing Office, Sacramento.

Miller, Robert Rush

1967. Status of populations of native fishes of the Death Valley system in California and Nevada. Completion report of resource studies problem undertaken for the U.S. National Park Service, June-July, 1967. University of Michigan, Ann Arbor, August 4, 1967.

1969. Symposium on rare and endangered fishes of the Death Valley system. Summary report to the National Park Service. Museum of Zoology, The University of Michigan, Ann Arbor, December 1, 1969.

Worts, G. F., Jr.

1963. Effect of ground-water development on the pool level in Devil's Hole, Death Valley National Monument, Nye County, Nevada. Report prepared at the request of the National Park Service. U.S. Department of the Interior, Geological Survey, Water Resources Division, Carson City, Nevada, August, 1963.

THOSE IN ATTENDANCE AT RARE FISH SYMPOSIUM, FURNACE CREEK, Nov. 18-19, 1969

NAME	AGENCY	ADDRESS
Ed Smith	BLM	2800 Cottage Way, Sacramento 95825
Jim Blaisdell	NPS	450 Golden Gate Ave., S.F. 94102
Homer P. Leach	NPS	Death Valley, Calif. 92328
Lewis H. Myers	BLM	Las Vegas
Don Cain	BLM	Ely, Nevada
Bill Templeton	BLM	Riverside, Calif.
Bob Jennings	BLM	Bakersfield, Calif.
Robert Rush Miller	Univ. of Michigan	Ann Arbor, Mich.
Frances H. Miller	Univ. of Michigan	Ann Arbor, Mich.
Frances N. Clark		San Pedro, Calif.
O. L. Wallis	NPS	Washington, D.C.
Laura S. Hubbs	Scripps Inst.	La Jolla, Calif.
Robert L. Borovicka	BLM	710 N.E. Holladay St., Portland, Ore.
Martin Litton		180 Bear Gulch, Portola Valley, Calif. 94025
Keith R. Artz	The Nature Conservancy	134 Madrone Ave., San Anselmo, Calif.
Sterling Bunnell	The Nature Conservancy	32 Millwood, Mill Valley, Calif. 94941
Paul Fodor	NPS	Death Valley, Calif.
James LaBounty	Bureau of Reclamation	2565 Van Patten #2, Las Vegas, Nev. 89109
Dale U. Lockard	Nevada Fish and Game	P.O. Box 4336, Las Vegas, Nevada 89106
William J. Newman	Nev. Div. Water Resources	201 S. Fall St., Carson City
Wayne P. Alley	Calif. State College at Los Angeles	5151 State College Drive, Los Angeles 90032
Clinton H. Lostetter	BSFW	Portland, Oregon
David W. Greenfield	Calif. State College	Fullerton
James E. Deacon	Univ. Nev., Las Vegas Dept. Biol. Science	Las Vegas, Nev. 89109
W. L. Minckley	Ariz. State Univ.	Tempe, Arizona 85281

Ward Gillilan	Calif. Fish and Game	107 S. Broadway, Los Angeles 90012
Vern Burandt	Calif. F. & G. Warden	647 Inyo St., Lone Pine, Calif.
Carl L. Hubbs	Scripps Inst. Oceanography	La Jolla, Calif.
Jim St. Amant	Calif. Fish and Game	107 S. Broadway, Los Angeles 90012
Leonard Fisk	Calif. Fish and Game	1416 - 9th St., Sacramento 95814
William M. Richardson	Calif. Fish and Game	107 S. Broadway, Los Angeles 90012
Phil Pister	Calif. Fish and Game	407 W. Line St., Bishop 93514
Robert Brown	UCLA	3291 Sepulveda #3, Los Angeles 90034
Vladimir Walters	UCLA	Dept. Zoology, UCLA, Los Angeles 90024
Tom Jenkins	Bureau Sport Fisheries and Wildlife	Bishop, Calif., Rt. 3, Box 198
Robert Liu	UCLA	Dept. Pathology, UCLA, Los Angeles 90024
Tim Nappe	Foresta Inst.	Box 620, Rt. 1, Carson

15. Defendant's 1972 Exhibit K, Agenda and Minutes of Las Vegas District Advisory Board Meeting, May 24, 1967.

AGENDA

Las Vegas District Advisory Board Meeting
May 24, 1967

1.	*Meeting Called to Order*		9:00 a.m.
	A. Announcement and Introduction of Guests		
	B. Approval of Minutes of Previous Meeting		
2.	*Old Business*		
3.	*New Business*		
	A. Ash Meadows Exchange	Stan Shepard	9:20 a.m.
	B. Lincoln County Classification	Malcolm Charlton	9:30 a.m.
	C. *Section 4 Permits:*		
	1. Caliente Resource Area	Malcolm Charlton	9:45 a.m.
	2. State Line Resource Area	Jim Moorhouse	10:00 a.m.
	D. *Transfer of Grazing Privileges:*		
	1. Caliente Resource Area	Malcolm Charlton	10:15 a.m.
	2. Caliente Resc ce Area	Robert Currier	10:20 a.m.
	E. *Adjudication of Clover Mountain Unit*		10:30 a.m.
	1. Willow Creek Allotment	Philip Zeig	
	2. Pennsylvania Allotment	Philip Zeig	
	3. Henrie Brothers	Robert Currier	
	4. Esplin-Lytle Allotment	Philip Zeig	
	5. Lancaster Allotment	Robert Currier	
	6. Amaru Allotment	Robert Currier	
	7. Culverwell-Lancaster Allotment	Robert Currier	
	8. Ballow-Tennille Allotment	Robert Currier	
	9. Barclay Allotment	Malcolm Charlton	
	10. Bradshaw Allotment	Philip Zeig	
	11. Schlarman Allotment	Robert Currier (Delamar Unit)	
	F. Recommendation on Replacement for Cattle Representative in Precinct No. 1.		
	G. Any Other Business That Should Be Brought Before the Board.		

United States
Department of the Interior
Bureau of Land Management
1859 North Decatur Blvd.
Las Vegas, Nevada 89108

Minutes of
Las Vegas District Advisory Board Meeting
May 24, 1967

The Las Vegas District Advisory Board convened at 3:00 p.m., May 24, 1967, at the Las Vegas BLM Office. Attending were:

Advisory Board Members

Emery K. Conaway, Chairman
Andrew Lytle, Vice-Chairman
Archie Hughes
John Donaldson, Wildlife Representative

BLM Personnel

Ross Ferris, Range Specialist, NSO
Dennis E. Hess, District Manager
Gene Nodine, Range Manager
Malcolm Charlton, Area Manager,
Caliente and Virgin Valley Resource Areas
Philip Zieg, Range Conservationist
Robert E. Currier, Range Conservationist

The meeting was called to order by Chairman Emery Conaway with a quorum of 4 representing the Board.

The primary purpose of this meeting was to discuss with the Board and obtain a recommendation on the grazing adjustment of the Clover Mountain Unit in the Las Vegas District. A copy of the agenda is attached.

The minutes of the December 16, 1966 meeting had been approved by the chairman and distributed to each

Board member for review. In view of this, the motion was made, seconded, and passed unanimously by the Board that we dispense with the reading of the minutes.

Ash Meadows Exchange

Mr. Stan Shepard presented the Spring Meadows, Inc. Exchange applications to the Board for their general information and comment although the lands involved are under Section 15 leases and lie outside the Grazing District. He stated that the eight applications for exchange involve lands in Humboldt County for lands in Ash Meadows in Nye County. He said that the Bureau is presently examining the lands to determine who and what is out there and the land appraisal itself. He stated that the BLM wants to expose exchanges involving large acreages to as many interested parties as they can. The lands in Ash Meadows are in a Type IV transfer area.

Spring Meadows, Inc. has purchased some 5,000 acres of deeded land from George Swink, and with this additional land could develop the area for agricultural, livestock, and residential homesite uses. They hope to encourage the workers at Mercury to live in Ash Meadows. About 60% of the area is covered with unpatented mining claims.

Mr. Shepard stated that 80% of the land has been examined and he hopes to finish the field work this week.

Q. How many acres are involved?

A. About 13,500 acres of public domain land is involved in Ash Meadows and a similar amount of private land in Humboldt County. These private lands intermingle public domain and their acquisition will provide better management for the Winnemucca District of BLM for livestock and recreation. Several range users will utilize these lands on a cooperative range basis.

Q. What provisions are to be made to protect the springs in Ash Meadows and the rare fish?

A. Our proposed classification notice will be mailed to all the interested groups we can think of for their comments or protests.

Q. Are there springs on public domain land?

A. Jackrabbit Springs in the only large one left, and it is not involved.

Mr. Donaldson stated that the Nevada Fish and Game Commission has a cooperative agreement with the University for the preservation of rare and endangered fish.

Mr. Shepard said that Nevada Southern University and the Nevada Fish and Game Commission would certainly receive notice of the proposed classification for their comments.

Lida Townsite

Mr. Shepard went on to explain the disposal of lands around Lida Townsite. The Bureau has been asked to put the lands up for sale under the 1964 Public Sale Act.

Lincoln County Classification

Mr. Malcolm Charlton presented the proposed Lincoln County Classification to the Board for their comment and recommendation. The lands included in the classification were pointed out on a map. Mr. Charlton stated that the BLM is authorized by P. L. 607 and instructed to classify the public lands. Most all public lands in Lincoln County have been proposed for classification by the Las Vegas and Ely Districts. BLM

personnel have met with the public in Pioche, Panaca, Caliente, and Alamo, and have presented the proposal and asked for suggestions. All lands identified as having potential for disposal have been excluded from the proposed classification. All other public lands having potential for multiple-use management have been proposed for retention. One member of the Board stated that there was not much opposition to the proposed classification at the public meetings and hearings.

The motion was made, seconded, and passed unanimously that the Board was in favor of the proposed classification (Serial No. N-892) of the public domain lands in Lincoln County of the Las Vegas District as published in the Federal Register.

Section 4 Permits

The Section 4 Permits submitted since the last meeting in the Caliente and Virgin Valley Resource Areas were presented to the Board by Malcolm Charlton.

Those permits that had not been previously approved by the Board were:

Rachel Ballow	— Corral and Loading Chute
Foremaster Bros.	— Cement and Galvanized Iron Tank and Water Haul
Foremaster Bros.	— Corral and Loading Chute
Erwin Burns	— Southeastern Corral

NAME	AGENCY	ADDRESS
Jim Yoakum	BLM	300 Booth St., Reno, Nevada
Peter G. Sanchez	NPS	Death Valley, Calif.
Alan M. McCready	Private	2510 Rogue River Drive, Sacramento
Jim Brown	UCLA	Dept. Zoology, UCLA, Los Angeles 90024
Mrs. Jim Brown	UCLA	Dept. Zoology, UCLA, Los Angeles 90024
Robert Murphy	NPS	Death Valley, Calif. 92328
David Soltz	UCLA	Dept. Zoology, UCLA, Los Angeles 90024

16. Presidential Proclamation of January 17, 1952, 17 Fed. Reg. 691 (Not Printed; See Pet. App. #74-1107, pp. C1-C3).

17. Order, C.A.9, August 20, 1973, Modifying Preliminary Injunction.

United States Court of Appeals, for the Ninth Circuit.

(Caption omitted in printing)

ORDER [August 20, 1973]

Before: CHAMBERS and WALLACE, Circuit Judges, and SCHWARTZ, District Judge.

PER CURIAM:

This court is of the view that the preliminary injunction issued in the district court should be modified there to provide that the pumping of defendants be restricted to the extent necessary to maintain the water level of Devil's Hole at its level existing as of the date of the filing of this order; that is, as best the actual level as of this date can be ascertained; or at the level existing on August 7, 1973, whichever is higher.

This more nearly serves to preserve the status quo than the temporary injunction granted in District Court.

We regard the circumstance that there is apparently no recourse to defendants-appellants for damages (if the preliminary injunction was improvidently issued) as a strong equity to weigh in the balance for the defendants.

Further, on our present record there is little reason to believe that the present order we now direct will result in the extinction as a species of the pupfish in Devil's Hole.

Further, we make this comment: We see no reason that the government should not have here now sought to get this case to trial on the merits and a final decree entered. It is doubtful if there is much more evidence to be presented. And it is not right for the government to prolong the entire litigation one day longer than is necessary.

Our decision is effective immediately as a judgment and mandate.

If the government can represent that it can and would legally indemnify the defendants against loss if it eventually develops that the original temporary injunction was improvidently issued, the court as now constituted would be willing to entertain a motion to reconsider this order.

Remanded for proceedings consistent herewith.

18. Order, C.A.9, January 24, 1974, Remanding Cause for Entry of Final Decree.

United States Court of Appeals, for the Ninth Circuit.

(Caption omitted in printing)

ORDER

Before: CARTER and CHOY, Circuit Judges, and SOLOMON, District Judge.

At the argument the court suggested the desirability of a final judgment. As we recall, the United States and the State of Nevada stipulated at the argument that the preliminary injunction might be considered, for the purposes of the appeal, a final judgment. The appellants, Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett and Spring Meadows Ranch, have advised the court by letter that they also stipulate to the same effect.

The court is of the view that the matter should be presented to the district court for a determination of whether the district court desires to make any change in the preliminary injunction; that a formal order be filed and entered to the effect that the preliminary injunction (as it now stands or as amended) be incorporated in the order as a permanent injunction, or a new permanent injunction be filed and entered; that new notices of appeal be filed from the permanent injunction; and that the parties stipulate that the present record in Nos. 73-2168 and 73-2915 be part of the new record on appeal.

The court will then consider the new appeal on the old record, without further briefs or argument, and render a decision in the matter.

19. District Court's Findings of Fact and Conclusions of Law, April 9, 1974.

In the United States District Court, for the District of Nevada.

(Caption omitted in printing)

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Introduction

This is a civil action in which the United States as plaintiff has sought to have its rights declared to the use of so much of the waters appurtenant to the land known as Devil's Hole, Death Valley National Monument, as may be necessary for the needs and purposes of maintaining the pool and the desert pupfish therein, and that such rights be declared to have a priority date of January 23, 1952. The United States also has sought both a preliminary and a permanent injunction enjoining

the defendants Francis Leo Cappaert, Marilyn I. Cappaert, B. L. Barnett, and Spring Meadows Ranch, and each of them, from pumping wells known as Nos. 1, 2, 3, 4, 5, 6, and 16 and 17, and from all other wells now existing or hereafter drilled on designated sections of land,[1] except for domestic purposes, which would be similarly detrimental to the water rights of the United States and the survival of the Devil's Hole pupfish. On June 5, 1973, this Court made its findings of fact and stated its conclusions of law, issued its preliminary injunction, and appointed a Special Master.

On appeal, the Court of Appeals made an order that this Court enter its final decree.

At a conference with this Court on February 15, 1974, counsel for all parties advised that they had no further evidence to offer and agreed that a final decree should be entered.

Findings of Fact

1. Plaintiff is the United States of America and the jurisdiction of the Court was invoked under Title 28, Section 1345, United States Code.

2. Spring Meadows, Inc., was a corporation formed under the laws of the State of Nevada on June 17, 1966, with 60 Court Street, Reno, Nevada, listed as its place of business. Spring Meadows, Inc., filed a Certificate of Voluntary Dissolution with the Secretary of

[1]Wells Nos. 1, 2, 3, 4, and 5 are located in Section 7, T. 18 S., R. 51 E.; Well No. 6 is located in Section 3, T. 18 S., R. 50 E.; Wells Nos. 16 (1A) and 17 (1B) are located in Section 8, T. 18 S., R. 51 E. All other wells now existing or hereafter drilled within Sections 28, 33 and 34, T. 17 S., R. 50 E.; within Sections 31 and 32, T. 17 S., R. 51 E.; within Sections 2, 3, 4, 9, 10, 11, 12, 13, 14 and 15, T. 18 S., R. 50 E.; and within Sections 5, 6, 7, 8, 17 and 18, T. 18 S., R. 51 E., M.D.B.M.

State for the State of Nevada on December 30, 1970. The only stockholders at the time of the filing of the Certificate of Voluntary Dissolution were Francis Leo Cappaert and Marilyn I. Cappaert of Vicksburg, Mississippi.

3. A stipulation for amendment of parties was filed with the Court and approved under which the defendants Francis Leo Cappaert and Marilyn I. Cappaert stipulated that they had actual notice of this lawsuit, had been properly served and subjected themselves to the jurisdiction of the United States District Court for the District of Nevada.

4. Spring Meadows Ranch is the land owned by Francis Leo Cappaert and Marilyn I. Cappaert located near Lathrop Wells, in the County of Nye, State of Nevada. Spring Meadows Ranch is a cattle ranch consisting of approximately 12,000 acres, of which 4,000 acres are in cultivation. Approximately 1,700 to 1,800 head of cattle are fed on the ranch at any given time.

5. Defendant B. L. Barnett is ranch manager of the Spring Meadows Ranch.

6. The United States is the owner of Devil's Hole, Death Valley National Monument, and has been at all times since the Treaty of Guadalupe Hidalgo in 1848.

7. Devil's Hole, a 40-acre tract, was withdrawn from the public domain and became part of Death Valley National Monument by Presidential Proclamation 2961, of January 17, 1952. The Presidential Proclamation was published in the Federal Register on January 23, 1952 (17 Fed. Reg. 691).

8. Devil's Hole is a limestone cavern which lies approximately 50 feet below the general land surface, with sheer walls on all but its western side. At the

bottom is a pool of water which is the home of the Devil's Hole pupfish, Cyprinodon diabolis. The pool is about 65 feet long and 8 to 10 feet wide, with a natural rock shelf at the western edge. This natural shelf slopes to the east, is 6 to 17 feet in length, and varies in width from 4 to 9 feet.

9. Through the Presidential Proclamation of January 17, 1952, and its publication in the Federal Register on January 23, 1952 (17 Fed. Reg. 691), the unappropriated waters in, on, under and appurtenant to Devil's Hole were withdrawn from private appropriation as against the United States and reserved to the extent necessary for the requirements and purposes of the said reservation.

The purposes of the reservation of Devil's Hole as part of Death Valley National Monument include the preservation of the pool of water and the preservation of the Devil's Hole pupfish (Cyprinodon diabolis) which live therein.

10. The defendants own lands and claim water rights within the Ash Meadows area of Nye County near Devil's Hole and claim rights in or to waters of that area, which claimed rights conflict with the claimed rights of the United States.

11. In June 1962, a copper washer was placed on the wall of Devil's Hole by the United States Geological Survey to serve as a reference point for its water level.

12. The Devil's Hole pupfish is dependent for feeding and reproduction and, hence, for its survival upon the natural rock shelf. This rock shelf is just below the surface of the water in Devil's hole.

13. Prior to the defendants' groundwater pumping in the Ash Meadows area, the mean water level in

Devil's Hole was 1.2 feet below the copper washer and had not been lower than 1.59 feet below the copper washer.

14. The natural rock shelf and rubble thereon on which the Devil's Hole pupfish depend for feeding, reproduction and, hence, their survival, is nearly 100% covered with water when there is a mean water level of 3.0 feet below the copper washer.

15. The defendants drilled wells and began heavy pumping of groundwater in the summer of 1968. Since then the defendants have engaged in heavy groundwater pumping each year.

16. The defendants' pumping of groundwater from wells known as Nos. 1, 2, 3, 4, 5 and 6, and 16 and 17, has drawn water from the springs and underground sources which comprise the supply for Devil's Hole. Because the defendants' wells and Devil's Hole are hydraulically connected, defendants' pumping has caused the water level in Devil's Hole to drop.

17. In 1969 the water level in Devil's Hole reached a low of minus 2.3 feet below the copper washer.

18. In 1970 the water level in Devil's Hole reached a low of minus 3.17 feet below the copper washer.

19. In 1971 the water level in Devil's Hole reached a low of minus 3.48 feet below the copper washer.

20. In 1972 the water level in Devil's Hole reached a low of minus 3.93 feet below the copper washer.

21. If the defendants had pumped water from their wells in 1973 that was comparable or greater in amount than that pumped in 1972, the water level in Devil's Hole would probably have reached a low of more than minus 4.2 feet below the copper washer.

22. Since the source of water supplying both Devil's Hole and the groundwater tapped by the defendants' wells on Spring Meadows Ranch is the same, future wells in other areas of the ranch may have an adverse effect on the water level in Devil's Hole. Pumping from certain areas of the ranch, notably Sections 28, 33 and 34, T. 17 S., R. 50 E., Sections 31 and 32, T. 17 S., R. 51 E., Sections 2, 3 and 4, and 9, 10, 11, 12, 13, 14 and 15, T. 18 S., R. 50 E., and Sections 5, 6, 7 and 8, and 17 and 18, T. 18 S., R. 51 E., were shown to have a probable effect on the water level of Devil's Hole.

23. At the hearing held on June 2, 1973, counsel stipulated that:

(a) In September 1972 the water level in Devil's Hole ceased to drop at a level of about 3.7 feet below the level of the copper washer reference point.

(b) Throughout September, October and the early part of November 1972, the water level remained stabilized at about 3.7 feet below the copper washer reference point, during which time the production of water from the defendants' wells, as estimated from electrical power records, was about 700 acre feet per month, plus or minus 10%.

(c) The water level in Devil's Hole arose to the same position during the winter of 1972-73 as occurred during the winter of 1971-73, that being 2.65 feet below the copper water reference point.

(d) The pumpage from the aquifer system in the Ash Meadows area can be regulated so as to produce stabilization of the water level in Devil's Hole at any desired position below its mean natural level of 1.2 feet below the copper washer.

(e) On May 30, 1973, the daily mean water level at Devil's Hole was 3.41 feet below the copper washer.[2]

24. In order to maintain a viable continuous population of Devil's Hole pupfish, the water level in Devil's Hole must be maintained above the natural rock shelf and the rubble thereon, which is a minimum of not less than a daily mean of 3.0 feet below the copper washer.

25. If the water level at Devil's Hole drops below 3.0 feet below the copper washer, the survival of the Devil's Hole pupfish will be threatened, that is, the time of their becoming extinct in the natural evolutionary order will be accelerated.

26. The use of an artificial shelf in Devil's Hole has not proven to be a successful alternative course of action for the preservation of the Devil's Hole pupfish.

27. Transplanting of the Devil's Hole pupfish has not to date proven to be a successful alternative course of action for the preservation of the Devil's Hole pupfish.

28. The United States has shown that the public interest lies in the preservation of this endangered species. Congress has enacted the Endangered Species Conservation Act (16 U.S.C. 668aa.), and the Secretary of the Interior pursuant to that statute has identified the Devil's Hole pupfish, Cyprinodon diabolis, to be an endangered species. Witnesses offered by the United States testified to the importance of the species to

---

[2]For a comprehensive and chronological record of the daily mean water level from June 15, 1973, through March 3, 1974, inclusive, see the reports of the Special Master on file in this action. The first report was dated July 5, 1973, the ninth report March 19, 1974. Although this Court makes no findings relative to the Special Master's reports, it is believed that all counsel will concede the accuracy of the Special Master's findings as to the daily mean water level history found in the reports.

mankind. Congress, state legislatures, local governments, and citizens have all recently voiced their expression for the preservation of our environment, and the destruction of the Devil's Hole pupfish would go clearly against that theme of environmental responsibility.

29. In support of its prayer for a permanent injunction, the United States has shown that the pumping by the defendants from certain wells on the Spring Meadows Ranch lowers the water level in the pool in Devil's Hole in derogation of the prior rights of the United States to the use of the waters appurtenant to Devil's Hole for the preservation and maintenance of Devil's Hole and the Devil's Hole pupfish found therein.

30. If a permanent injunction is not granted restricting pumping by the defendants as prayed for on the Spring Meadows Ranch, there is grave danger that the Devil's Hole pupfish may be destroyed, resulting in irreparable injury to the United States.

31. Although the defendants have shown that they would suffer economic injury from the restrictions on their pumping prayed for by the plaintiff United States, there was been no request from the Government to completely prevent the use of any water by the defendants. The restriction prayed for was curtailment of the pumping only to the extent necessary to provide for the continued survival of the pupfish. In addition, so far all the wells identified as affecting Devil's Hole lie within two and one-half miles of Devil's Hole.

Conclusions of Law

1. This Court has jurisdiction of the subject matter and of the parties to this action.

2. Through the Presidential Proclamation of January 17, 1952, and its publication in the Federal Register on January 23, 1952 (17 Fed. Reg. 691), the unappropriated waters in, on, under and appurtenant to Devils' Hole were withdrawn from private appropriation as against the United States and reserved to the extent necessary for the requirements and purposes of the said reservation.

3. The purposes of the reservation of Devil's Hole as part of Death Valley National Monument includes the preservation of the pool of water and the preservation of the Devil's Hole pupfish (Cyprinodon diabolis) which live therein.

4. Congress, through the Desert Land Act of 1877, 19 Stat. 377, and its predecessor acts of July 26, 1886, and July 9, 1870, 43 U.S.C. 321, separated the public domain's water rights from its land rights.

5. The patents to which the defendants trace their ownership passed title to land, but not to any water rights.

6. The exchange of lands between the United States and the defendants in 1969 likewise did not pass any title to water rights.

7. Because of the federal reservation of January 1952, and because the defendants have not shown this Court any water rights established prior to the federal reservation, the water rights of the plaintiff United States are superior in time and right to those of the defendants.

8. The behavior of the United States and the defendants in the land exchange, or in any other dealings, does not make out a case of estoppel against the United States.

9. The United States has shown that the public interest lies in the preservation of this endangered

species. Congress has enacted the Endangered Species Conservation Act (16 U.S.C. 668aa.), and the Secretary of the Interior pursuant to that statute has identified the Devil's Hole pupfish, Cyprinodon diabolis, to be an endangered species. Witnesses offered by the United States testified to the importance of the species to mankind. Congress, state legislatures, local governments, and citizens have all recently voiced their expression for the preservation of our environment, and the destruction of the Devil's Hole pupfish would go clearly against that theme of environmental responsibility.

10. The United States has no adequate remedy at law in the event the pupfish are rendered extinct by the action of the defendants in pumping ground water on the Spring Meadows Ranch.

11. The United States has shown that it is entitled to a permanent injunction limiting the amounts of groundwater pumping from wells Nos. 1, 2, 3, 4, 5, 6, and 16 and 17, and limiting any future withdrawals from Sections 28, 33 and 34, T. 17 S., R. 50 E., Sections 31 and 32, T. 17 S., R. 51 E., Sections 2, 3 and 4 and 9, 10, 11, 12, 13, 14, and 15, T. 18 S., R. 50 E., and Sections 5, 6, 7 and 8, and 17 and 18, T. 18 S., R. 51 E., so that the water level in Devil's Hole does not drop below a daily mean water level of 3.0 feet below the copper washer.

DATED: April 9th, 1974.

ROGER D. FOLEY
DISTRICT JUDGE

20. District Court's Final Decree, April 9, 1974 (Not Printed; See Pet. App. No. 74-1304, pp. xix-xxii).

21. Order, C.A.9, May 10, 1974, Staying Final Decree of District Court.

United States Court of Appeals for the Ninth Circuit.

(Caption omitted in printing)

Before: MERRILL and BROWNING, Circuit Judges

ORDER

On consideration of appellants' motion for modification of final decree pending appeal, it is ordered that the decree of the district court, insofar as it is inconsistent with the order of this court entered August 20, 1973 in case No. 73-2168, is stayed pending further order of this court. Appellants' motion for modification is passed to a regular motions panel of this court.

/s/ Charles M. Merrill
/s/ James R. Browning
U.S. Circuit Judges

22. Order, C.A.9, May 29, 1974, Modifying Final Decree of District Court Pending Appeal.

United States Court of Appeals, for the Ninth Circuit.

(Caption omitted in printing)

ORDER

BEFORE: CARTER and CHOY, Circuit Judges and *SOLOMON, District Judge.

Pending final determination of the above appeal, the final injunction is modified to require that the water

*The Honorable Gus J. Solomon, Senior U.S. District Judge, District of Oregon, sitting by designation.

level in Devil's Hole be maintained at not less that 3.3 feet below the marker.

The foregoing order is entered pursuant to the direction of Circuit Judge James M. Carter, for himself and Judge Solomon.

23. Opinion, C.A.9, Dec. 4, 1974 (Not Printed; See Pet. App. No. 74-1107, pp. A1-A7; Also in Pet. App. No. 74-1304, pp. i-xviii).

24. Judgment of Affirmance, C.A.9, (Not Printed; See Pet. App. No. 74-1107, p. B1; Also in Pet. No. 74-1304, pp. xxii-xxiii).

25. Order Denying Rehearing, C.A.9, (Not Printed; See Pet. App. No. 74-1107, p. B2; Also in Pet. App. No. 74-1304, pp. xxiii-xxiv).

Supreme Court, U. S.
FILED
APR 30 1975
MICHAEL RODAK, JR., CLERK

No. 74-1107

In the Supreme Court of the United States

OCTOBER TERM, 1974

FRANCIS LEO CAPPAERT, ET AL., PETITIONERS

v.

UNITED STATES OF AMERICA

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF FOR THE UNITED STATES IN OPPOSITION

ROBERT H. BORK,
Solicitor General,

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Washington, D.C. 20530.

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BRIEF FOR THE UNITED STATES IN OPPOSITION

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. A, A-1 to A-17) is reported at 508 F.2d 313. The findings of fact, conclusions of law, and order of the district court are reported at 375 F. Supp. 456.

JURISDICTION

The judgment of the court of appeals was entered on December 4, 1974 (Pet. App. B, B-1). A timely petition for rehearing was denied on January 31, 1975 (Pet. App. B, B-2). The petition for a writ of certiorari was filed on March 6, 1975. This Court's jurisdiction is invoked under 28 U.S.C. 1254(1).

QUESTION PRESENTED

Whether the United States, by virtue of a Presidential Proclamation declaring Devil's Hole, formerly part of the public domain, to be a national monument, thereby reserved such underground waters as are required to preserve the pool of water in Devil's Hole and a species of fish whose sole habitat is that pool.

STATUTE AND PROCLAMATION INVOLVED

The Act of June 8, 1906, 34 Stat. 225, 16 U.S.C. 431-433, is reproduced at Pet. App. D, D-1 to D-2. In pertinent part it provides:

> Sec. 2. That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments * * * .

The Presidential Proclamation of January 17, 1952, 66 Stat. C18, 17 Fed. Reg. 691, is reproduced at Pet. App. C, C-1 to C-3.

STATEMENT

The essential facts of this case, which are set forth in the opinion of the court of appeals (Pet. App. A), may be summarized as follows. In 1952, by Presidential Proclamation, "a remarkable underground pool known as Devil's Hole * * * " and the 40 acres surrounding it were withdrawn from the public domain and established as a detached portion of Death Valley National Monument (Pet. App. C, C-1 to C-3). The pool is the sole natural habitat of a "peculiar race of desert fish * * * found nowhere else in the world" (*ibid.*) known as pupfish (Cyprinodon diabolis).

In 1968, petitioners, who had recently acquired nearby lands, began substantial groundwater pumping to support a new ranching venture. Prior to the commencement of this pumping, the water level in the Devil's Hole pool was stable at a level approximately 1.2 feet below a fixed reference point. Thereafter, the pool began to recede, partially exposing a natural rock shelf upon which the fish are heavily dependent for feeding and reproduction.[1] As pumping continued, more and more of the rock shelf became exposed and the pupfish population declined precipitously.

In 1971, the United States initiated this suit to enjoin petitioners from pumping to an extent that would cause exposure of the natural rock shelf. The district court, finding that the reduced water levels caused by petitioners' pumping threatened the extinction of the pupfish, entered a preliminary injunction directing petitioners to curtail their water use. The district court also appointed a special master to determine the quantities of water petitioners could utilize without endangering the fish.

On appeal, the court of appeals, with concurrence of the parties, remanded the case to the district court for entry of a final order. After entry of the order making the injunction permanent, the court of appeals affirmed (Pet. App. A) but directed the district court to retain continuing jurisdiction to determine the precise water level required to ensure survival of the fish.

---

[1]The United States has not requested, nor have the courts required, petitioners to restore the pool to its natural level nor completely to terminate their pumping operations; petitioners are required to refrain from causing the level to recede to a point that endangers the fish.

ARGUMENT

1. Petitioners contend (Pet. 11-15) that the decisions of the district court and court of appeals present novel and important questions of water law. However, as the decision below shows, there are no such questions at issue. It is well established that the United States may, by withdrawal of public lands, impliedly reserve such appurtenant unappropriated waters as are required to accomplish the purpose for which the lands are reserved. Such federal reserved water rights may be found in conjunction with the reservation of lands for any appropriate federal purpose. *United States* v. *District Court in and for the County of Eagle,* 401 U.S. 520, 522-523; *Arizona* v. *California,* 373 U.S. 546, 597-602; *Winters* v. *United States,* 207 U.S. 564.[2] Thus, the courts below found that the United States created a federal reserved water right by virtue of the Presidential Proclamation establishing Devil's Hole as a national monument (Pet. App. A, A-5 to A-9).

In order for petitioners to have the right to withdraw waters in derogation of the federal use, it was incumbent upon them to demonstrate that they held a prior perfected water right. But the courts below found that petitioners had not used the waters in question prior to 1968 and that their water right was consequently inferior to the federal water right dating from 1952, when Devil's Hole was reserved as a national monument (Pet. App. A, A-8 to A-10).[3]

---

[2]See also *Federal Power Commission* v. *Oregon,* 349 U.S. 435, 447-448.

[3]In regard to the Endangered Species Acts dating from 1966, which petitioners discuss at Pet. 18-19, these Acts were mentioned by the courts below only to demonstrate that a congressionally-established public policy would be frustrated should an injunction fail to issue. The existence of the government's water right was based not on the Endangered Species Acts but on the establishment of the Devil's Hole National Monument in 1952.

2. Petitioners also argue that the withdrawal of Devil's Hole was not authorized by the terms of the Act of June 8, 1906, 34 Stat. 225, 16 U.S.C. 431, permitting the establishment of national monuments and that, in any event, the Presidential Proclamation did not evince any intent to preserve the pupfish (Pet. 16-18).

The Act of 1906 authorizes the President, at his discretion, to declare by public proclamation "objects of historic *or scientific interest* that are situated upon the lands owned or controlled by the Government of the United States to be national monuments * * *" (emphasis added; see p. 2, *supra*). See, also, *Cameron* v. *United States,* 252 U.S. 450, 455-456. As the extensive evidence introduced in this case shows, the pupfish and the pool itself are objects of intense scientific interest. As to the scope of the proclamation, it is clear from its wording (Pet. App. C, C-1) that President Truman intended to preserve Devil's Hole in its natural setting and that one of the primary reasons the hole and pool were deemed worthy of protection was precisely because the unique pupfish live in it. Moreover, the proclamation must be read in conjunction with the National Park Service Act, 39 Stat. 535, 16 U.S.C. 1, which states that the fundamental purpose of all national parks and monuments is to "conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and such means as *will leave them unimpaired to the enjoyment of future generations.*" (Emphasis added.)

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be denied.

Respectfully submitted.

ROBERT H. BORK,
Solicitor General.

WALLACE H. JOHNSON,
Assistant Attorney General.

JACQUES B. GELIN,
ROBERT L. KLARQUIST,
Attorneys.

APRIL 1975.

DOJ-1975-04

Service of the within and receipt of a copy thereof is hereby admitted this ..... day of August, A.D. 1975.

IN THE

Supreme Court of the United States

October Term, 1975
No. 74-1107

Supreme Court, U. S.
FILED
AUG 22 1975
MICHAEL RODAK, JR., CLERK

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

v.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor [*and Petitioner in No. 74-1304*].

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

BRIEF FOR THE PETITIONERS

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AUGUST 1975.

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I.

In view of the severance of land and water on the public domain, effected by Congress in 1877 pursuant to the Property Clause of the Constitution, jurisdiction to dispose of all non-navigable waters on the public domain, whether surface or underground, passed to the several arid-land states; but this principle has been widely ignored since its original formulation by this Court 40 years ago 29

A. Congress effected a severance of land and water on the public domain in the arid western third of the country 29

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B. The Congressional severance of land and water on the public domain, and the subjection of all non-navigable water thereon to the jurisdiction of the several arid-land states, were fully recognized and given effect by this Court in 1935, in a decision that was faithfully followed for 16 years 31

C. In 1955, however, the Court sharply limited the foregoing decisions by holding them inapplicable to withdrawn lands 37

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II.

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IN THE

Supreme Court of the United States

October Term, 1975
No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

v.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor [*and Petitioner in No. 74-1304*].

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

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BRIEF FOR THE PETITIONERS

OPINIONS BELOW

The opinion of the court below modifying the preliminary injunction originally entered (A. 357-358) is reported at 483 F.2d 432. The findings and conclusions (A. 359-368) and the final decree of the district court (Pet. App. No. 74-1304, xix-xxii) are reported at 375 F. Supp. 456. The opinion of the court below (Pet. App. A1-A17) is reported at 508 F.2d 313.*

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*"Pet. App." refers to the Appendices to the Petition for Certiorari in this case, "Pet. App. No. 74-1304" to the Appen-

(This footnote is continued on next page)

JURISDICTION

The judgment of the court below (Pet. App. B1) was entered on December 4, 1974. A timely petition for rehearing was denied on January 31, 1975 (Pet. App. B2). The petition for certiorari in this case was filed on March 6, 1975, and granted on June 23, 1975. The jurisdiction of this Court rests on 28 U. S. C. §1254(1).

QUESTIONS PRESENTED

1. Whether the severance by Congress of all land and non-navigable water on the public domain, which made all such water subject to the laws of the several arid-land states, may be nullified by automatically attaching to every setting aside of public lands an implied reservation of all undergound water underlying such lands, for all federal purposes whensoever authorized.

2. Whether a proclamation setting aside public land can properly be construed to reserve all underground water underlying such land, including that derived from distant sources, for purposes not recognized by Congress until long after its date.

3. Whether, where public land was set aside in 1952 for national monument purposes under authority of an act for the preservation of antiquities passed in 1906, and thereafter, under legislation first enacted in 1966, such land is deemed primarily valuable for protecting an endangered species of fish, all of the underground water reaching the national monument from

dices to the Petition for Certiorari filed by the intervenor in case No. 74-1304 to review the identical judgment. Where the same matter appears in the appendices to both petitions, citations in the present brief will be restricted to "Pet. App."

many miles distant may be held reserved for the latter purpose, where the operation of such reservation substantially damages farm land miles away, and where state law since 1939 had declared that beneficial rights in underground water could only be acquired by proceedings pursuant thereto.

The foregoing three questions presented were set forth in the Cappaerts' petition for certiorari. Intervenor State of Nevada *ex rel.* Roland D. Westergard, State Engineer, filed its own petition for certiorari to review the identical judgment below, docketed as No. 74-1304, which was also granted, and consolidated with this case. These petitioners are accordingly of the view that they may properly address themselves to an additional question presented in the intervenor's petition, as follows:

4. Whether the federal government must comply with state procedure for establishing the existence and scope of any water right, implied reserved right or otherwise, which it desires to assert to the water beneath reserved and non-reserved land.

STATUTES INVOLVED

Some of the statutes involved are set forth in Pet. App. D1-D8, and in Pet. App. No. 74-1304, xxv-xxvii. Other pertinent statutory provisions not elsewhere set out in full in the present brief appear in Appendix A hereto, below, pp. 91-97.

STATEMENT

This was an action by the United States to enjoin the Cappaerts, petitioners here, from pumping under-

ground water essential to the operation of their large farm and cattle ranch, the complaint alleging that such pumping endangered the continued existence of pupfish in an underground pool many miles distant from petitioners' property (A. 10-14). Relief was granted by both courts below in the view that the setting aside, as part of an existing monument, of the 40 acres of the public domain in which the pool was located, operated as a reservation of all underground water for miles around, for purposes not authorized by Congress until more than a decade after the land in question had been set aside (District court's findings of fact and conclusions of law, A. 359-368; district court's final decree [Pet. App. No. 74-1304, xix-xxii]; opinion below [Pet. App. A1-A17]).

By way of preliminary, there are set forth the most significant chronological datum points relevant to the present litigation:

March 3, 1877	Desert Land Act, 19 Stat. 377.
June 16, 1880	Nevada Lieu Selection Act, 21 Stat. 287.
March 1890 to October 1892	Conveyances by the United States to the State of Nevada, petitioners' predecessor in title, pursuant to 1880 Act.
June 8, 1906	Act for the preservation of American antiquities, 34 Stat. 225.
March 22, 1913	Nevada Act for the Adjudication of Water Rights, now ch. 533, Nev. Rev. Stat.
December 1916 to April 1951	Conveyances by the United States directly to petitioners' predecessors in title.

March 25, 1939	Nevada Act relating to Underground Waters, now ch. 534, Nev. Rev. Stat.
January 17, 1952	Proclamation adding Devil's Hole to Death Valley National Monument, 66 Stat. c18, 17 Fed. Reg. 691.
October 15, 1966	First Endangered Species Act, 80 Stat. 926.
May 24, 1967	U. S. Bureau of Land Management's Las Vegas District Advisory Board considers the Cappaerts' application for an exchange of lands involving over 13,000 acres.
October 14, 1969	By reason of National Park Service's protest against any conveyance within one mile of Devil's Hole, such land was excluded from a proposed exchange, and the United States conveys only 5645.33 acres to the Cappaerts in exchange for land of equal value in Humboldt County conveyed by them.
December 5, 1969	Endangered Species Conservation Act of 1969, 83 Stat. 275.
April 1970	Cappaerts apply to Nevada's State Engineer for permits to pump underground water from their wells.
October 13, 1970	Devil's Hole pupfish, *Cyprinodon diabolis,* first declared an endangered species, 35 Fed. Reg. 16047.

December 16, 1970 Following hearing at which the United States filed protests and participated fully, Nevada State Engineer grants Cappaerts permits for pumping underground waters from their wells.

August 18, 1971 Present action brought by the United States to enjoin Cappaerts' pumping of underground water from wells located on their lands, including wells on lands conveyed to them by the United States in 1969.

December 28, 1973 Endangered Species Act of 1973, 87 Stat. 884.

A. The Cappaerts' Ranch*

"The Cappaerts' ranch consists of 12,000 acres, of which 4,000 acres are in cultivation. The ranch, which represents an investment of more than 7 million dollars, has an annual payroll of more than $340,000 and employs more than 80 people. Between 1700 and 1800 head of cattle are fed on the ranch." (Opinion below, Pet. App. A2.) The record shows that the Cappaerts' crops include wheat, barley, alfalfa, and Bermuda grass (A. 248).

The colored map tipped in as Appendix B at the back of this brief (Defts. 1972 Ex. I, A. 199, 203-

*The Cappaerts' ranch, also known as the Spring Meadows Ranch, is located near Lathrop Wells, Nye County, Nevada (Fdg. 4, A. 361), and was owned by Spring Meadows, Inc., a Nevada corporation. That corporation was voluntarily dissolved on December 30, 1970, the only stockholders being Francis Leo Cappaert and Marilyn I. Cappaert; those two were thereafter substituted as parties defendant herein (Fdgs. 1, 2; A. 360). The remaining defendant-petitioner is the ranch manager (Fdg. 5, A. 361).

204)—technical difficulties precluded its inclusion in the printed Appendix—shows the Cappaerts' ranch in relation to Devil's Hole.

Areas colored blue represent land owned by private individuals other than the Cappaerts (A. 200-201), those colored brown and purple (dark brown color in original exhibit) show portions of the public domain still held by the United States. The purple was the land excluded from the proposed exchange (A. 203).

Areas shown in green are the lands owned in fee by the Cappaerts prior to 1969 (A. 201); these were obtained from two sources. Some were originally patented by the United States to the State of Nevada, pursuant to the Nevada Lieu Selection Act of June 16, 1880, c. 245, 21 Stat. 287, over a period extending from March 1890 to October 1892 (A. 201, 206, 210-214; Defts. 1972 Ex. D1-D11, E1-E13, F1-F23, G1-G26, H1-H6 (not printed)). Other fee lands were patented directly to predecessor owners between December 1916 and April 1951 (A. 215-218; Defts. 1972 Ex. C2-C10 (not printed)).

The area colored yellow represents the land patented directly to the Cappaerts in 1969 (A. 201-202) pursuant to an exchange effected in that year under Section 8 of the Taylor Grazing Act of 1934, as amended, now 43 U. S. C. § 315g(b), *infra*, p. 94.

In order to effectuate this exchange, the Cappaerts acquired about 12,000 acres in Humboldt County, Nevada (A. 246-247), representing to the Chief of the Branch of Lands and Minerals Operations of the U. S. Bureau of Land Management in the State of Nevada that the acreage they sought in exchange, was to be used to enlarge an existing farming and livestock operation

(A. 171-172). The records of the Las Vegas District Advisory Board of the U. S. Bureau of Land Management, which considered the exchange, reflect that this board was fully aware of the Cappaerts' intended use of the land (A. 238-239; Defts. 1972 Ex. K, A. 240-241, 352, 354-355).

In making the appraisals prior to the exchange, required to comply with the statutory command that the exchange be of lands having "an equal value", the Bureau of Land Management representatives considered the availability of water on the land proposed to be traded to the Cappaerts, and their ability to obtain well permits in connection with such land (A. 180-181).

Due publication of the proposed exchange was made, and interested Federal agencies were advised and invited to comment (A. 176-177, 237-238). The National Park Service interposed a qualified objection lest the use of water by the Cappaerts within one mile of Devil's Hole would lower the water level in the hole. In consequence of that objection, land within one mile of Devil's Hole was excluded from the exchange. Ultimately, of the more than 13,000 acres originally sought by the Cappaerts only 5645.33 acres were actually patented to them by the United States on October 14, 1969. The balance of the land was retained by the United States because of the subsequent water and pupfish problems. (A. 176-180, 215, 218, 238; Defts. 1972 Ex. C2, not printed.)

A portion of the 12,000 acres of Humboldt County land acquired by the Cappaerts in contemplation of the exchange was deeded to the United States in return, for the better management of the Bureau of Land Management's Winnemucca district (A. 239).

The tracts obtained by the Cappaerts in the 1969 exchange constitute the southeast portion of their ranch, and are the best land that they have; this is the only portion of the ranch that shows a profit, and hence it carries all the rest (A. 248-249, 254-255).

B. Devil's Hole and the Pupfish

"Devil's Hole, a part of the Death Valley National Monument, * * * consists of a 40-acre tract in which there is a deep limestone cavern. At the bottom of the cavern there is a pool about 65 feet long, 10 feet wide, and more than 200 feet deep. There are steep rock walls on three sides of the pool, but on the fourth side there is a sloping rock shelf on which algae grows. * * *

"The Devil's Hole pupfish [*Cyprinodon diabolis*] live in this pool. These pupfish evolved after the Death Valley Lake System dried up, isolating this species of fish from its ancestral stock. The pupfish population varies from 200 in the winter to 800 after spawning in the spring and depends for its survival on the sloping rock shelf which provides food and a spawning ground. The Devil's Hole pupfish are less than one inch long and do not exist anywhere else in the world." (Opinion below, Pet. App. A2.)

There are of course numerous species of *Cyprinodon* found in the Death Valley drainage system of California and Nevada, which includes Devil's Hole (A. 154), and four species of that genus, other than *diabolis*, were listed as endangered species in 1970 (50 CFR, Part 17, Appendix D). There is also evidence from Government pupfish experts to show that the Devil's Hole pupfish have apparently been successfully transplanted to the Hoover Dam refugium (Defts. 1973 Ex. E; 1973 Tr. 50-53, 256-257, 260; not printed).

Devil's Hole pool is located approximately 50 feet below the surrounding land surface. At one time Devil's Hole was a flowing spring. In the past the water level was at different heights ranging from the top to where it now is. (A. 81-82.) It is probable that the water also was at lower levels in the past (1973 Tr. 230-232, not printed). There are numerous boulders and shelves in the hole at varying higher levels that could have provided the same function for the pupfish as the rock shelf they now use (A. 82). That shelf fell into the hole some time ago and lodged at its present location (1973 Tr. 226, not printed).

The record shows that the Devil's Hole tract is fenced off with barbed wire; it is not accessible to the general public, but only to selected individuals to whom the National Park Service permits access (A. 161). Some individuals who dove into the pool deeper than 200 feet never returned (A. 50).

Death Valley National Monument was first created in 1933, and then enlarged in 1937 (Proc. No. 2028, Feb. 11, 1933, 47 Stat. 2554; Proc. No. 2228, Mar. 26, 1937, 50 Stat. 1823). On both occasions, the Proclamation declared that the withdrawal being made was effected under the 1906 Act for the preservation of American antiquities (Act of June 8, 1906, c. 3060, 34 Stat. 225, now 16 U. S. C. §§431-433; Pet. App. D1-D2).

Pursuant to a third Proclamation reciting the identical statutory authority, the 40-acre tract containing Devil's Hole—the area now in controversy—was in 1952 added to and reserved as a detached unit of the Death Valley National Monument (Proc. No. 2961, Jan. 17, 1952, 66 Stat. c18, 17 Fed. Reg. 691; Pet. App. C1-C3).

Here is the operative paragraph of the third Proclamation:

> "NOW, THEREFORE, I, HARRY S. TRUMAN, President of the United States of America, under and by virtue of the authority vested in me by section 2 of the act of June 8, 1906, 34 Stat. 225 (16 U. S. C. 431), do proclaim that, subject to the provisions of the act of Congress approved June 13, 1933, 48 Stat. 139 (16 U. S. C. 447), and to all valid existing rights, the following-described tract of land in Nevada is hereby added to and reserved as a part of the Death Valley National Monument, as a detached unit thereof:"

(The 1906 act is the one for preservation of American antiquities, that of June 13, 1933, simply extended the mining laws of the United States to the Death Valley National Monument.)

Unauthorized persons were expressly warned in that 1952 Proclamation "not to appropriate, injure, destroy, or remove any feature of this addition to the monument and not to locate or settle on any of the lands thereof" (Pet. App. C2).

Nothing was said in the 1952 Proclamation about water rights, surface or underground, and the only mention therein of "a peculiar race of desert fish" occurs in the fourth of its five preambles.

In November 1969, at the National Park Service's headquarters at Furnace Creek, California, federal, state, and university representatives attended a symposium sponsored by the California Department of Fish and Game; this symposium was devoted to the protection and preservation of the rare and endangered

fishes of the Death Valley System. The report of the symposium proceedings was prepared by Edwin P. Pister, one of the government's expert fishery biologist witnesses in the present case (A. 152-153, 161), and it forms part of the record here (Defts. 1972 Ex. B, A. 132-133, 163-164, 314-351).

One of the other participants in the Furnace Creek symposium was Professor Carl L. Hubbs of the Scripps Institute of Oceanography, La Jolla, California (Defts. 1972 Ex. B at A. 351). During the proceedings—according to Professor Robert R. Miller, his son-in-law (A. 129) and another Government expert at the trial (A. 112-113)—Professor Hubbs "discussed that [1952] proclamation because he was the one that was chiefly instrumental in getting the Devil's Hole set aside as part of the National Monument. * * * He pointed out that the National Park Service did not have a policy for setting aside a national monument to preserve endangered species, and therefore he had come up with this idea of pointing out the travertine deposit as a means of getting Devil's Hole set aside as part of Death Valley National Monument. * * * it took him quite a little while to get some action" (A. 131).

The official record of the symposium reports Professor Hubbs' comments in these terms (Defts. 1972 Ex. B at A. 319):

> "The first step towards habitat protection in this area was the establishment in 1952 of Devil's Hole as part of Death Valley National Monument. Interestingly, this was done ostensibly because of the unique travertine limestone formations, but not to preserve *Cyprinodon diabolis*, the unique fish inhabitant."

Mr. Pister, reporter for the symposium, used a tape of the proceedings in making up his written report (A. 132, 161-164).

Another participant in the Furnace Creek symposium, Mr. Sterling Bunnell of The Nature Conservancy (Defts. 1972 Ex. B at A. 350; see also A. 348, ¶10), published an article in *Action in California Tomorrow*, which stated (A. 168-169):

> "In 1940, Carl Hubbs and R. R. Miller first suggested that the hole be made part of the Death Valley National Monument. Park Service naturalists initially rejected the idea, citing its distance from monument headquarters and their doubts as to the uniqueness of the species. But in 1952, Hubbs and Miller were successful in convincing the service that the hole was worthy of inclusion in the monument. In doing so, they cited an unusual travertine limestone formation in the hole as a pretext, since park service policy at that time did not consider saving a rare animal species sufficient reason for acquiring land."

C. Endangered Species Legislation and Executive Action

There have been three acts of Congress for the protection of endangered species, all of them providing for purchase or other acquisition of land for that purpose, none of them laying claim to any water, surface or underground.

1. The first such act dates from October 15, 1966 (Pub. L. 89-669, 80 Stat. 926).

Section 2(b) thereof, 80 Stat. at 927, provided—

> "(b) In addition to the land acquisition authorities in such Acts [Migratory Bird Conservation

Act as amended; Fish and Wildlife Act of 1956 as amended; Fish and Wildlife Conservation Act], the Secretary [of the Interior] is hereby authorized to acquire by purchase, donation, or otherwise, lands or interests therein needed to carry out the purpose of this Act relating to the conservation, protection, restoration, and propagation of selected species of native fish that are threatened with extinction."

2. Three years later, the 1966 legislation was supplemented by the Act of December 5, 1969 (Pub. L. 91-135, 83 Stat. 275).

That Act provided as follows in its Section 12(d), 83 Stat. at 283:

"(d) The provisions of Sections 1 through 5 of this Act, and sections 1 through 3 of the Act of October 15, 1966 (80 Stat. 926; 16 U. S. C. 668aa-668cc), as amended, shall hereafter be cited as the 'Endangered Species Conservation Act of 1969' ".

In the interim, Section 2(b) of the 1966 Act had not been amended.

3. Both the 1966 and the 1969 Acts were in large measure superseded and partially repealed by the Endangered Species Act of [December 28] 1973 (Pub. L. 93-205, 87 Stat. 884, 16 U. S. C. §§ 1531-1543).

The "land acquisition" provisions of the 1973 Act (87 Stat. at 889, 16 U. S.C. §1534) are as follows:

"Sec. 5 *(a) Program.*—The Secretary of the Interior shall establish and implement a program to conserve (A) fish or wildlife which are listed as endangered species or threatened species pursuant to section 4 of this Act; or (B) plants which are included in Appendices to the Convention. To carry out such program, he—

(1) shall utilize the land acquisitions or other authorities under the Fish and Wildlife Act of 1956, as amended, the Fish and Wildlife Coordination Act, as amended, and the Migratory Bird Conservation Act, as appropriate; and

(2) is authorized to acquire by purchase, donation, or otherwise, lands, waters, or interests therein, and such authority shall be in addition to any other land acquisition authority vested in him.

(b) Acquisitions.—Funds made available pursuant to the Land and Water Conservation Fund Act of 1965, as amended, may be used for the purpose of acquiring lands, waters, or interests therein under subsection (a) of this section."

4. With respect to executive action under the foregoing legislation, Devil's Hole pupfish, *Cyprinodon diabolis*, were first declared an endangered species on October 13, 1970 (35 Fed. Reg. 16047; 50 CFR, Part 17, Appendix D).

D. The Underground Water; Effects of Pumping

The water under both the Cappaerts' ranch and Devil's Hole is collected in a large underground basin that extends over an area of 4500 square miles, underlying which there is a limestone aquifer. (An aquifer is simply a geological formation or structure that transmits water). Some of the water comes from more than 70 miles away (A. 71-79).

Any substantial pumping anywhere within the 4500 square mile aquifer will in time affect the water level in

Devil's Hole (A. 78-80, 99-101). The precise effect of such pumping, as the present record shows, cannot be accurately predicted even by learned hydrologists of wide experience (A. 65-67, 99-102, 103-105, 253, 264-265, 267-268).

A recorder in Devil's Hole measures its water level continuously; all such levels are calculated with reference to distance below a copper washer installed there in 1962. Hence "3.7" means a water level 3.7 feet below the washer (A. 31-32; 1973 Tr. 109, not printed).

"Between 1962 and 1968 the average water level was 1.2 feet below the marker. In 1968, after the Cappaerts began to pump, the summer water level"—they pump only from March to October (A. 254)—"steadily decreased: in 1970 to 3.17 feet below the marker; in 1971 to 3.48 feet and in 1972 to 3.9 feet. At these water levels large areas of the critical rock shelf are exposed. At 3.6 feet below the marker, 42 per cent of the shelf is exposed, and at 3.7 feet the exposure increases to 55 per cent. The shelf exposure decreases the algae production and limits the spawning area which in turn reduces the Devil's Hole pupfish's chance to survive" (Opinion below, Pet. App. A3).

However, the present record shows that in Devil's Hole, lower than the sloping rock used for spawning, there are also three somewhat similar rocks below the surface that are also used by the pupfish, who can be found on all of them. During censuses taken in 1972 and 1973, there were more pupfish on the lower shelves than on the shelf near the surface (1973 Tr. 135, not printed).

As the map at the end of this brief shows, the Cappaerts' wells numbered 1, 2, 3, 4 and 6 are located on

lands obtained prior to 1900 by their predecessors in title (Defts. 1972 Ex. D1-D11, E1-E13, F1-F23, G1-G26, H1-H6; not printed). But their wells numbered 5, 16, and 17 are located on tracts that they obtained in the 1969 exchange with the Government (A. 205).

If the Cappaerts are unable to pump their wells numbered 1, 2 and 17, they will be forced to close down the southeastern portion of their ranch—its only profitable part—and all that is now planted there will be lost (A. 254-255).

The record shows why wells 16 and 17 were dug where they are now situated; "the main reason was that based on the information that the U. S. G[eological]. S[urvey]. could give us, that we had the water there, and that it was not involved with water connected with Devil's Hole" (A. 253).

There was also testimony, from the Cappaerts' ranch manager, that Dr. Dudley, the Government's expert hydrological witness from the U. S. Geological Survey, had in September 1971 said, in connection with wells 16 and 17, that "it was his opinion that the water supplying that area where those wells were was separate from that being supplied to Devil's Hole, and it was in his opinion that what we did in the way of pumping or drilling in that area would not affect the others" (A. 264). Thereafter, wells Nos. 16 and 17 were drilled (A. 264-265).

Recalled in rebuttal, Dr. Dudley testified that what he had said was "that we had no evidence that there would be any effect from that area; but there might well be" (A. 267). But, on cross-examination (A. 268):

"Q And did you tell them at that time you didn't think that drilling in that area would affect the level?

"A I can not recall if I said it.

"Q You could very well have?

"A I suppose I might have."

E. The Cappaerts' Well Pumping Permits

Pursuant to the Nevada statutes relating to underground waters (Pet. App. D7-D8; Pet. App. No. 74-1304, xxvii; *infra*, pp. 94-97), the Cappaerts in April 1970 applied for, and on December 16, 1970, obtained, permits from the State Engineer of Nevada to drill wells 1-5 and 17 (A. 222-223, 227-278).

The record of the proceedings before the State Engineer (A. 281-313) shows that the National Park Service formally protested the Cappaerts' applications, and asked that they be denied (Govt. 1972 Ex. 12-17, A. 228-230, 269-280). Those protests specifically recited (e.g., A. 271-272, 273-274, 275-276) "that further lowering of the water level in Devil's Hole, Ash Meadows, Nevada would result from the pumping of underground water in this area. This in effect would result in further threat of extinction to the already endangered native fishes of the genus Cyprinodon (Desert Pupfish) which inhabit Devil's Hole. In recent months other springs in the area which provide the habitat for these native fishes have shown indications of marked decreased flow as a result of the pumping of the underground water sources."

At the hearing before the State Engineer, the representative of the United States recited facts relating to the pupfish and to the water level in the Devil's Hole pool

(A. 286-287), referred specifically to the 1952 Proclamation, and said (A. 287):

"The Proclamation recognized the unique scientific value of the Devil's Hole pupfish and stated that the subterranean pool in Devil's Hole is 'of such outstanding scientific importance that it should be given special protection.' The 'peculiar race of desert fish' was cited by the President as a primary reason for protecting Devil's Hole."

He further said (A. 287-288):

"These diminutive fish, because of their restricted distribution and numbers, are recognized as endangered species and are on the list of endangered species of the United States promulgated by the Secretary of the Interior under the provisions of the Rare and Endangered Species Act of 1965, 16 U. S. C. 668aa."

The 1952 Proclamation was offered and received (A. 306, 308), but, as indicated, the State Engineer rejected the National Park Service protests, and granted the pumping permits sought by the Cappaerts.

The United States did not seek judicial review of the State Engineer's grants of those permits, as it might have done under NRS 534.030.3 and 533.450 (*infra*, pp. 94-97). Instead, it brought the present independent action for injunctive relief.

The court below held, however, that the State Engineer's action did not amount to *res judicata* so as to bar the present proceeding (Pet. App. A15-A16).

F. Travel of the Case; Rulings Below Affecting the Water Level

Having failed to convince the State Engineer. and having thereafter failed to appeal his rulings as provided by Nevada law, the United States then on August 18, 1971, brought the present action (A. 2). Thereafter, pursuant to stipulations that limited the Cappaerts' pumping, a hearing on the Government's motion for a preliminary injunction was postponed from time to time (A. 2).

An amended complaint was filed on May 2, 1972; the State of Nevada on the relation of its State Engineer moved to intervene as a party; and a hearing on the amended motion for a preliminary injunction was held early in July 1972 (A. 2, 21-268).

After the district court indicated in a minute entry that a preliminary injunction would be granted, the Government moved for an order adjudicating defendants in contempt, and for a temporary restraining order. The first motion was denied, but after a further hearing the district court made findings of fact and conclusions of law, entered a preliminary injunction, and appointed a special master (A. 3).

That injunction, entered on June 5, 1973 (A. 4), required the Cappaerts to limit their pumping so that a 3.0 feet level would be attained in the Devil's Hole pool. Both the Cappaerts and the State of Nevada, which had earlier been permitted to intervene (A. 2, 21), appealed the preliminary injunction (A. 7, 8). The Cappaerts moved for a modification of the preliminary injunction pending appeal, first unsuccessfully in the district court (A. 4), next unsuccessfully in the court of appeals (A. 7). But, on reconsideration, the court of

appeals modified the preliminary injunction on August 20, 1973, to require only a level of 3.3 feet, that court saying that "there is little reason to believe that the present order we now direct will result in the extinction as a species of the pupfish in Devil's Hole" (A. 357).

Following argument of the appeals, the court of appeals on January 24, 1974, remanded the case for entry of a final judgment (A. 358-359); and such a judgment was duly entered by the district court on April 9, 1974, again ordering a pool water level of 3.0 feet (Pet. App. No. 74-1304, xix-xx).

Once again, petitioners and the intervenor both appealed (A. 8, 9); once again, the court of appeals modified the final judgment below to permit the Devil's Hole water level to remain at 3.3 feet (A. 8, 369 [two orders]). It then proceeded, pursuant to its earlier orders (A. 8), to determine the second appeals "without further briefs or argument" (A. 8, 359).

The final judgment of the court of appeals, entered on December 4, 1974, affirmed the district court's fixing of the 3.0 feet level, but remanded the case for that court "to determine whether, on the facts developed during the pendency of this appeal, the lower water level [3.3 feet] may be adequate to preserve the pupfish" (Pet. App. A16-A17, B1).

Following denial of a timely petition for rehearing (Pet. App. B2), the court of appeals stayed its mandate (A. 9). The Cappaerts and the intervenor then filed separate petitions for certiorari; both were granted by this Court, which consolidated the two for argument.

The record reflects zealous prosecution of the cause by the Government. (a) Prior to the entry of a formal

preliminary injunction by the district court, the Government moved to cite petitioners for contempt (Dist. Ct. docket entry, May 10, 1973; A. 3). (b) During the pendency of the appeals from the preliminary injunction, the Government moved for the entry of a permanent injunction (Dist. Ct. docket entry, Sept. 10, 1973; A. 5). (c) Before the court of appeals had denied either petition for rehearing, and hence before either of the petitions for certiorari in this matter could be filed, the Government moved in the district court to establish the 3.0 feet water level (Dist. Ct. docket entry, Jan. 21, 1975; A. 6).

SUMMARY OF ARGUMENT

I.

A. By a series of enactments in 1866, 1870, and 1877, all passed pursuant to the Property Clause (Art. IV, Sec. 3) of the Constitution, Congress effected a severance of all land and non-navigable water on the public domain in the arid western third of the country, and made all such waters subject to local law.

B. That severance, as well as that subjection to local law, were both given effect by this Court in a series of decisions from 1935 to 1951, from *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142, to *Dority v. New Mexico ex rel. Bliss*, 341 U. S. 924.

C. Thereafter the foregoing doctrine was sharply limited and held inapplicable to withdrawn lands, in a later decision (*Federal Power Comm. v. Oregon*, 349 U. S. 435—the *Pelton Dam* case) that was rendered without any apparent knowledge that since 1935 at the latest all land on the public domain had been with-

drawn, and that overlooked as well the Congressionl transfer of jurisdiction over non-navigable water to the several arid-land states. Yet such a transfer was an integral part of the *California Power* line of decisions.

D. Since the *Pelton Dam* case, and following several rulings that turned on arrangements for the benefit of Indians, the Court has apparently embraced the wholly different principle that every withdrawal of land by the United States carries with it an implied reservation of sufficient water to effectuate the federal purpose for which it was withdrawn.

II.

The implied reservation doctrine is properly applicable only to situations involving Indians, for two reasons.

First, under a settled rule of decision, all agreements with Indian tribes, who are wards of the nation, will be construed in their favor.

Second, Indian rights are national in nature and prevail over those of the states; this proposition has been ruled from *Worcester v. Georgia*, 6 Pet. 515, through *McClanahan v. Arizona State Tax Comm'n*, 411 U. S. 164. That is why there can be an implied reservation of water rights in connection with a withdrawal for the benefit of the Indians, even when such withdrawal followed the Desert Land Act of 1877 that transferred to the arid-land states in all other respects full jurisdiction over non-navigable waters on the public domain within their several borders.

This result may not be entirely logical, but Indian law is characteristically *sui generis*.

III.

If, however, the implied reservation doctrine is to be extended to every non-Indian situation whenever an "intention" to reserve water can fairly be implied from the instrument of withdrawal, then the result reached below is still wrong.

A. When Devil's Hole was reserved, in 1952, the *California Power* doctrine was in full force, having been reaffirmed less than nine months earlier. *Dority v. New Mexico ex rel. Bliss,* 341 U. S. 924.

B. Additionally, the text of the 1952 Proclamation mentions pupfish only to confirm the remarkable scientific interest of the pool being reserved, and neither declares them to be of scientific interest nor to be themselves worthy of protection. As a matter of language, that Proclamation is simply not susceptible of the meaning interpolated into it below.

C. The record lays bare the dissimulation that underlay the preparation of the 1952 Proclamation. The sponsors of that document proceeded by subterfuge, stressing the geological features of Devil's Hole because fully aware that there was then no statutory basis for protecting pupfish or indeed any other rare species.

D. The legislative history of the only statute on which the 1952 Proclamation purported to rely, the 1906 Act for the preservation of American antiquities, shows that this measure was designed to protect only archeological remains, plus artifacts therein suitable for preservation in museums. It was not drawn to embrace the protection of living species, and moreover withdrawals of land under its terms were specifically limited to the smallest possible extent. Both the text as

well as the legislative history of the 1906 Act under which the 1952 Proclamation was issued negative any intent whatever to reserve underground water from an aquifer 4500 square miles in extent and many miles distant from the 40-acre tract actually reserved in this case.

E. Since Congress did not adopt the protection of endangered species as a public purpose until 1966, it is obvious from the arguments now being advanced here that the Government is seeking to give that legislation *ex post facto* effect.

F. As late as 1971, a Government hydrological expert foresaw no effect on the water level in Devil's Hole from the pumping of water from particular Cappaert tracts more than one mile distant therefrom. This is emphasized, not to lay the predicate for an estoppel, but simply to show that the President in 1952 could not possibly have intended to reserve waters that the Government's expert more than 19 years later considered to be without effect on Devil's Hole. Yet the next year the same expert testified that pumping anywhere in the 45000 square mile aquifer would eventually affect the Devil's Hole water level.

G. All the endangered species acts contain authority for condemning lands for the purpose of protecting such species, and absent condemnation proceedings pursuant to which they would be compensated, the Cappaerts' farm property may not be taken from them to protect the pupfish. If the public interest requires the taking of the property of individual farmers in order to protect the continued existence of pupfish located many miles distant from the farms involved, "resort must be had to proceedings by eminent domain; so that,

through taxation, the burden of relief afforded in the public interest may be borne by the public." *Louisville Bank v. Radford,* 295 U. S. 555, 602.

IV.

When the Cappaerts applied for pumping permits for their wells pursuant to the Nevada statute relating to underground water, their applications were protested by the National Park Service on the ground that the contemplated pumping would endanger the Devil's Hole pupfish. At the hearing before the Nevada State Engineer on those applications, a representative of the United States invoked the 1952 Proclamation and asserted the damage to the pupfish —the precise issues of law and fact that have been and are still being litigated in the present case. After the grant of the permits, the United States did not appeal, as it could have done under Nevada law, with a right thereafter to carry any federal question to this Court. *United States v. District Court for Eagle County,* 401 U. S. 520. Consequently, having failed to pursue its appellate remedies, the United States was not thereafter free to bring the present independent and collateral action.

A. Whenever a specific administrative procedure has been prescribed for the adjudication of particular claims and contentions, the losing party cannot thereafter relitigate the same subject-matter in an independent judicial proceeding. That is a principle of general application, evidenced by rulings that deal with many administrative tribunals of varying scope and functions, and one that will be fully articulated here, not only by the intervenor in the present litigation, the State of Nevada in No. 74-1304, but also by the *amici* and by both sets of petitioners in the water rights case from

Colorado that will be argued here this Term (*Colorado & C District v. United States,* No. 74-940; *Akin v. United States,* No. 74-949).

B. Moreover, the failure of the United States to appeal the State Engineer's grant of the well pumping permits to the Cappaerts, for which the path was open, makes his determination *res judicata*. True, the United States was not a party to the proceeding before him, but its representative appeared; he participated in the proceedings; and he made precisely the same contentions of law and fact that the representatives of the United States have been making at every stage of the present case. Consequently, under a precedent that is substantially weaker than the facts now appearing, the United States is barred from relitigation. *United States v. Silliman,* 167 F.2d 607, certiorari denied, 335 U. S. 825. *Res judicata* is simply a specialized facet of the general rule that the losing administrative litigant is not thereafter free to retry *de novo* in a court the precise claim that the administrative tribunal has already rejected.

ARGUMENT

Dramatically speaking this case presents a contest between two endangered species.

On the one hand there are the Devil's Hole pupfish, *Cyprinodon diabolis,* a pecular marine species, actually fish about an inch long at maturity, whose population has remained constant at between 200 to 800, and who were first declared to be endangered in 1970.

On the other hand there are the individual farmers of the United States, whose numbers had declined by 40 per cent from 1935 to 1970, while the country aggregate farm population over the same period dropped by a fearful 70 percent. *Statisical Abstract of the United States, 1974,* pp. 592, 596, 597.

But the legal issues now here for review cut far deeper. The ruling below, as the intervenor and the *amici* will develop in greater detail, actually threatens the future existence of the Western third of our nation. For, by unwarrantably expanding the doctrine of implied reservation of water rights to a drily logical extreme through unjustifiable and doctrinaire applications of generalized absolutes, that decision has nullified both the Congressional severance of land and water rights on the public domain wherever the arid-land rule of prior appropriation holds sway, as well as the Congressional subjection of all non-navigable waters in such areas to state law. Thus what was decided below in this case threatens the very life of the entire West.

The Cappaerts will show, after first outlining the orthodox rule several times recognized and applied here, that the implied reservation doctrine has a very much narrower scope than that subsequently recognized anywhere. Alternatively, they will then demonstrate that,

even if the implied reservation doctrine may properly be applied in instances where the United States, by a fair reading of the instrument reserving the land in question, "intended" to reserve both surface and underground waters appurtenant thereto, no such intent can possibly be spelled out of the 1952 Proclamation that forms the sole basis of the Government's case here, much less out of the statute on which that Proclamation purported to rely. Finally, the Cappaerts will point out that the Government's sole forum of first instance for the establishment of its water rights here was at the hearing before Nevada's State Engineer. His determination was expressly made subject to judicial review, in which all federal rights could have been asserted and preserved, and the United States, which did not pursue that route, was consequently not free to bring the present independent action.

I.

IN VIEW OF THE SEVERANCE OF LAND AND WATER ON THE PUBLIC DOMAIN, EFFECTED BY CONGRESS IN 1877 PURSUANT TO THE PROPERTY CLAUSE OF THE CONSTITUTION, JURISDICTION TO DISPOSE OF ALL NON-NAVIGABLE WATERS ON THE PUBLIC DOMAIN, WHETHER SURFACE OR UNDERGROUND, PASSED TO THE SEVERAL ARID-LAND STATES; BUT THIS PRINCIPLE HAS BEEN WIDELY IGNORED SINCE ITS ORIGINAL FORMULATION BY THIS COURT 40 YEARS AGO

A. Congress Effected a Severance of Land and Water on the Public Domain in the Arid Western Third of the Country

By a series of enactments in 1866, 1870, and 1877, Congress effected a severance of all non-navigable waters from the land of the public domain in the arid west-

ern portion of the nation, and made all such waters subject to local law. All of these actions were taken under the Property Clause of the Constitution, Art. IV, Sec. 3, which grants to Congress "Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; * * *."

Section 9 of the Act of July 26, 1866, c. 262, 14 Stat. 251, 253 (*infra*, p. 91), provided that the owners of vested rights to use water for mining, agricultural, manufacturing, or other purposes, would be protected, and granted such owners rights of way for the necessary canals and ditches.

Section 17 of the Act of July 9, 1870, c. 255, 16 Stat. 217, 218 (*infra*, p. 91) expressly stated "That none of the rights conferred by", *inter alia*, the preceding section of the 1866 Act, "shall be abrogated by this act, and the same are hereby extended to all public lands affected by this act; and all patents granted, or preemption or homesteads allowed, shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by" section 9 of the 1866 Act, just above.

Finally, on March 3, 1877, Congress passed what has since been termed the Desert Land Act, c. 107, 19 Stat. 377 (*infra*, pp. 92-94), the operative proviso of which was in these terms:

> "*Provided however* that the right to the use of water by the person so conducting the same, on or to any tract of desert land of six hundred and forty acres shall depend upon bona fide prior appropriation: and such right shall not exceed the amount of water actually appropriated, and necessarily used for the purpose of irrigation and reclamation: and all surplus water over and above such actual appropriation and use, together with the water of all, lakes, rivers and other sources of water supply upon the public lands and not navigable, shall remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes subject to existing rights."

Section 3 of the Desert Land Act listed the localities to which its provisions were applicable, then three states and eight territories. By reason of subsequent amendment of that section, and of the admission to the Union of all the remaining territories, the Desert Land Act remains effective in all 13 arid-land states (43 U. S. C. §323, Pet. App. D4), as follows: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

(For the present form of the several statutes just discussed, see 43 U. S. C. §§321, 323, and 661; Pet. App. D2-D5).

B. The Congressional Severance of Land and Water on the Public Domain, and the Subjection of All Non-Navigable Water Thereon to the Jurisdiction of the Several Arid-Land States, Were Fully Recognized and Given Effect by This Court in 1935, in a Decision That Was Faithfully Followed for 16 Years

The classic exposition of what was done by the statutes just discussed appears in *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142, decided by a unanimous Court in 1935.

Extended quotation from that opinion seems amply justified; its teaching was later overlooked and then forgotten here, its principles were wholly disregarded below, and indeed the decision itself was not even cited in either of the Government's oppositions in this case (Br. Op. No. 74-1107; Memo, Op. No. 74-1304).

Mr. Justice Sutherland, a Utah lawyer intimately familiar with the greening of the arid West, said for the Court (295 U. S. at 162-165; footnote omitted):

> "As the owner of the public domain, the government possessed the power to dispose of land and water thereon together, or to dispose of them separately. *Howell v. Johnson,* 89 Fed. 556, 558. The fair construction of the provision now under review is that Congress intended to establish the rule that for the future the land should be patented separately; and that all non-navigable waters thereon should be reserved for the use of the public under the laws of the states and territories named. The words that the water of all sources of water supply upon the public lands and not navigable 'shall remain and be held free for the appropriation and use of the public' are not susceptible of any other construction. The only exception made is that in favor of *existing* rights; and the only rule spoken of is that of *appropriation.* It is hard to see how a more definite intention to sever the land and water could be evinced. The terms of the statute, thus construed, must be read into every patent thereafter issued, with the same force as though expressly incorporated therein, with the result that the grantee will take the legal title to the land conveyed, and such title, and only such title, to the flowing waters thereon as shall be fixed

> or acknowledged by the customs, laws, and judicial decisions of the state of their locations. If it be conceded that in the absence of federal legislation the state would be powerless to affect the riparian rights of the United States or its grantees, still, the authority of Congress to vest such power in the state, and that it has done so by the legislation to which we have referred, cannot be doubted.
>
> "The proceedings in connection with the adoption of the Desert Land Act bear out this view. The bill which subsequently became the act was called up for consideration in the Senate on February 27, 1877. The report of the committee, among other things, said that the large portions of the lands bordering on the streams had been appropriated; that the provisions of the bill would enable settlers by combined efforts to construct more extensive works and reclaim lands now worthless; that a system had already grown up in the states and territories included in the bill which recognized priority of appropriation as the rule governing the right to the use of water, limiting the amount to that actually used, and thus avoiding waste.
>
> * * * * *
>
> There is nothing in the language of the act, or in the circumstances leading up to or accompanying its adoption, that indicates an intention on the part of Congress to confine the appropriation of water in contravention of the common-law doctrine to desert-land entrymen.
>
> *"Second.* * * * What we hold is that following the act of 1877, if not before, all non-navigable waters then a part of the public domain be-

came *publici juris,* subject to the plenary control of the designated states, including those since created out of the territories named, with the right in each to determine for itself to what extent the rule of appropriation or the common-law rule in respect of riparian rights should obtain. For since 'Congress cannot enforce either rule upon any state,' *Kansas v. Colorado,* 206 U. S. 46, 94, the full power of choice must remain with the state. The Desert Land Act does not bind or purport to bind the states to any policy. It simply recognizes and gives sanction, in so far as the United States and its future grantees are concerned, to the state and local doctrine of appropriation, and seeks to remove what otherwise might be an impediment to its full and successful operation. See *Wyoming v. Colorado,* 259 U. S. 419, 465.

"The public interest in such state control in the arid-land states is definite and substantial. In *Clark v. Nash,* 198 U. S. 361, 370, this court accepted that view to the extent of holding that in the arid-land states the use of water for irrigation, although by a private individual, is a public use; and sustained as constitutional a state statute which, for purposes of irrigation, permitted an individual to condemn a right-of-way for enlarging a ditch across the land of another. * * *."

As the Cappaerts have said, the decision was unanimous; the Court as then constituted included not only outstanding jurists from riparian states, such as Hughes C. J. and Brandeis, Stone, and Cardozo JJ., but also, from the arid West, Mr. Justice Van Devanter, whose six years as Assistant Attorney General for the Interior

Department had assuredly not bred in him hostility to Federal claims of right (24 L. D. v; 32 L. D. v; 121 Fed. v; 316 U. S. viii-x).

A few years later, another unanimous Court pointed out in *Ickes v. Fox,* 300 U. S. 82, 95, that, by the Desert Land Act of 1877,

> "if not before, Congress had severed the land and waters constituting the public domain and established the rule that for the future the lands should be patented separately. Acquisition of the government title to a parcel of land was not to carry with it a water-right; but all non-navigable waters were reserved for the use of the public under the laws of the various arid-land states."

Once again, in the interstate contest over the waters of the Platte River, *Nebraska v. Wyoming,* 325 U. S. 589, 612, the Court said:

> "The Desert Land Act 'effected a severance of all waters upon the public domain, not theretofore appropriated, from the land itself.' *California Oregon Power Co. v. Beaver Portland Cement Co.,* 295 U. S. 142, 158. It extended the right of appropriation to any declarant who reclaimed desert land and provided: 'all surplus water over and above such actual appropriation and use, together with the water of all, lakes, rivers and other sources of water supply upon the public lands and not navigable, shall remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes subject to existing rights.' See *Ickes v. Fox,* 300 U. S. 82, 95; *Brush v. Commissioner,* 300 U. S. 352, 367."

Five years later, in *United States v. Gerlach Live Stock Co.*, 339 U. S. 725, a case involving the Friant Dam project in California, the Court said (p. 734, footnote omitted):

> "We cannot disagree with claimants' contention that in undertaking these Friant projects and implementing the work as carried forward by the Reclamation Bureau, Congress proceeded on the basis of full recognition of water rights having valid existence under state law. By its command that the provisions of the reclamation law should govern the construction, operation, amd maintenance of the several construction projects, Congress directed the Secretary of the Interior to proceed in conformity with state laws, giving full recognition to every right vested under those laws. *Cf. Nebraska v. Wyoming*, 295 U. S. 40, 43; *Power Co. v. Cement Co.*, 295 U. S. 142, 164; *Nebraska v. Wyoming*, 325 U. S. 589, 614; *Mason Co. v. Tax Comm'n*, 302 U. S. 186. * * *"

Meanwhile, in 1913, Nevada had enacted a comprehensive water code for surface water, which established a systematic and orderly procedure, including provision for judicial review, for procuring appropriative water rights; the pertinent provisions of that code, now set forth in ch. 533 of the Nevada Revised Statutes, appear in Pet. App. D7; Pet. App. No. 74-1304, xxv-xxvii; and below, pp. 94-97.

Thereafter, following this Court's decisions in *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142, and in *Ickes v. Fox*, 300 U. S. 82, both *supra*, Nevada in 1939 enacted a similar code for underground water; this is now ch. 534, Nev. Rev. Stat. and its pertinent

sections appear in Pet. App. D7-D8; Pet. App. No. 74-1304, xxvii; and below, p. 97.

New Mexico had, in 1931, also enacted an equivalent statute governing the appropriation of subsurface water, pursuant to which that state sued to enjoin an individual's use of surface water not acquired under that statute; the latter defended by asserting the unconstitutionality of the legislative enactment. But the Supreme Court of New Mexico held that, under both state and federal law, the waters in question were subject to appropriation only under that statute. *State v. Dority*, 55 N. M. 12, 225 P.2d 1007.

An appeal to this Court was dismissed for want of a substantial federal question, specifically citing *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142. *Dority v. New Mexico ex rel. Bliss, State Engineer*, 341 U. S. 924.

Thus, up to May 7, 1951, the date of the dismissal order just cited, the *California Power* case represented the law of this Court.

C. In 1955, However, the Court Sharply Limited the Foregoing Decisions by Holding Them Inapplicable to Withdrawn Lands

But, with the passing of the years, there came a new judicial generation that knew not Joseph; by June 1955 not a single member of the Court that had decided the *California Power* case in 1935 was still alive. (Mr. Justice Roberts, who resigned in 1945, had died in May 1955. 349 U. S. vii.)

It is the foregoing circumstance which, perhaps more than any other, explains the next case, *Federal Power Comm. v. Oregon*, 349 U. S. 435, decided June 6,

1955. There non-navigable waters were held not to be within the doctrine of the earlier cases because, forsooth, the lands in question had been reserved by the United States, and thus were not "public lands" within the Desert Land Act. The rationale of the decision appears from the following (pp. 447-448; italics in original):

> "The nature and effect of these Acts [of 1866, 1870, and 1877] have been discussed previously by this Court. The purpose of the Acts of 1866 and 1870 was governmental recognition and sanction of possessory rights *on public lands* asserted under local laws and customs. *Jennison v. Kirk,* 98 U. S. 453. The Desert Land Act severed, for purposes of private acquisition, soil and water rights *on public lands,* and provided that such water rights were to be acquired in the manner provided by the law of the State of location. *California Oregon Power Co. v. Beaver Portland Cement Co.,* 295 U. S. 142. See also, *Nebraska v. Wyoming,* 325 U. S. 589, 611-616.
>
> "It is not necessary for us, in the instant case, to pass upon the question whether this legislation constitutes the express delegation or conveyance of power that is claimed by the State, because these Acts are not applicable to the reserved lands and waters here involved. The Desert Land Act covers 'sources of water supply upon the public lands . . . .' The lands before us in this case are not 'public lands' but 'reservations.' Even without that express restriction of the Desert Land Act to sources of water supply on public lands, these Acts would not apply to reserved lands. 'It is a familiar principle of public land law that statutes

> providing generally for disposal of the public domain are inapplicable to lands which are not unqualifiedly subject to sale and disposition because they have been appropriated to some other purpose.' *United States v. O'Donnell,* 303 U. S. 501, 510. See also, *United States v. Minnesota,* 270 U. S. 181, 206. The instant lands certainly 'are not unqualifiedly subject to sale and disposition . . . .' Accordingly, it is enough, for the instant case, to recognize that these Acts do not apply to this license, which relates only to the use of waters on reservations of the United States."

There was articulate dissent from a justice hailing from an arid-land state. Said Douglas J. (pp. 452-453, 456-457; footnote omitted):

> "I would not suppose the United States could erect a dam on this nonnavigable river without obtaining its water rights in accordance with state law. If I am right in that assumption, then this dam cannot be built without satisfying Oregon's water-rights law. For the federal licensee who will build this dam acquires all its rights from the United States. And the United States cannot give what it does not have.
>
> "The argument pressed on us by the United States is akin to the one urged in *Nebraska v. Wyoming,* 325 U. S. 589, 611 *et seq.* In that case, the United States struggled to be rid of the rule of law that made its water rights on nonnavigable streams of the West dependent on state law. It claimed that it owned all the unappropriated water in the basin of the North Platte River. The argument was made not only under the Reclamation Act of 1902, 32 Stat. 388, but also under

the Desert Land Act of 1877, 19 Stat. 377, the Act involved here. We reserved decision as to whether under some circumstances the United States might be the owner of unappropriated water rights. But we held that under those Acts the United States took its water rights like other landowners, *viz.*, pursuant to state law governing appropriation.

"Unless we are to depart from that ruling, we must accept Oregon's claim here.

* * * * *

"It was under this Act [of June 25, 1910, 36 Stat. 847] that some of the lands here involved were reserved for a power site. But the Act of June 25, 1910, by its very terms, did no more than withdraw these public lands 'from settlement, location, sale, or entry.' The Act did not purport to touch or change in any way the provision of the Desert Land Act that pertains to water rights. If the words of the 1910 Act are to control, water rights remained undisturbed. The lands remained 'public lands,' save only that settlers could not locate on them. I assume that the United States could have recalled its grant of jurisdiction over water rights, saving, of course, all vested rights. But the United States has not expressly done so; and we should not construe any law as achieving that result unless the purpose of Congress is clear.

"The reason is that the rule adopted by the Court profoundly affects the economy of many States, ten of whom are here in protest. In the West, the United States owns a vast amount of land—in some States, over 50 percent of all the

land. If by mere Executive action the federal lands may be reserved and all the water rights appurtenant to them returned to the United States, vast dislocations in the economies of the Western States may follow. For the right of withdrawal of public lands granted by the 1910 Act is not only for 'water-power sites' but for a host of public projects —'irrigation, classifications of lands, or other public purposes.' Federal officials have long sought that authority. It has been consistently denied them. We should deny it again. Certainly the United States could not appropriate the water rights in defiance of Oregon law, if it built the dam. It should have no greater authority when it makes a grant to a private power group."

Analytically, there are two reasons why the case of *Federal Power Comm. v. Oregon,* also known as the *Pelton Dam* case, because that was the project involved, cannot be supported.

First. The Court's decision rested on a far-reaching mistake of fact that undercuts the entire rationale of the opinion.

In actual fact, although obviously quite unbeknownst to the Court, since 1934 and 1935, twenty years earlier, there had not been a single tract of land forming part of the public domain in any of the thirteen arid-land states that was still subject to sale or disposition.

For, on November 26, 1934, in respect of all the arid-land states except Washington, an omission remedied on February 5, 1935, "all of the vacant, unreserved and unappropriated public land" in those states (as well as in 11 others) was "temporarily withdrawn from settlement, location, sale or entry, and reserved for

classification" in connection with the Taylor Grazing Act of June 28, 1934, c. 865, 48 Stat. 1269, 43 U. S. C. §§315 *et seq.* See Ex. O. No. 6910, 54 I. D. 539; Ex. O. No. 6964, 55 I. D. 188.

Those executive orders, effecting as they did a blanket withdrawal of every remaining tract of unappropriated public land, indeed marked the end of the frontier; they wrote finis to homesteading everywhere except in Alaska—which was expressly excepted from the Taylor Grazing Act (see Sec. 1, 43 U. S. C. §315), and to which the Desert Land Act had never applied. Thereafter lands owned by the United States could only be acquired by private individuals pursuant to existing rights, or under the mining laws, or through authorized exchanges. (Although the executive orders spoke of "temporarily" withdrawing the remaining public lands, in actual fact the withdrawals then effected have turned out to be permanent.)

Actually, therefore, the construction placed on the words "public lands" in the Desert Land Act by the decision in the *Pelton Dam* case, 349 U.S.435, 447-448, made those words meaningless—and in consequence wholly nullified, though under an all-pervasive mistake of fact, the teaching of *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142, and of the line of cases here that had faithfully followed it for 16 years.

It is significant in this connection that the lands removed from disposition pursuant to the blanket withdrawals of 1934 and 1935 aggregated some 163,000,000 acres. Public Land Law Review Commission, *One Third of the Nation's Land* (1970) 52.

The same report indicates that, excluding the two Dakotas, less than ten per cent of whose area is owned

by the United States, the average percentage of all land in the remaining arid-land states still held by the Government in 1968 came to 47 per cent—nearly half. See table at *id.* 327.

Second. Not only did the Court in the *Pelton Dam* case proceed under a fundamental misapprehension of fact, it wholly overlooked a most significant portion of the earlier rulings.

The *California Power* decision had done more than simply recognize the severance of land and water that Congress had effected in 1877, it emphasized throughout that, as a part of such severance, jurisdiction over all of the non-navigable waters thus severed passed to the several states and territories constituting the arid-land portion of the country.

Here is what the Court had said in *California Power* in 295 U. S.: "* * * Congress intended to establish the rule * * * that all non-navigable waters thereon should be reserved for the use of the public under the laws of the states and territories named" (p. 162); that "the authority of Congress to vest such power in the state, and that it has done so by the legislation to which we have referred, cannot be doubted" (*ibid.*); that after 1877 "all non-navigable waters then a part of the public domain became *publici juris*, subject to the plenary control of the designated states" (pp. 163-164); and that "The public interest in such state control in the arid-land states is definite and substantial" (p. 165).

All the above, in the aggregate an integral element of the *California Power* doctrine, was simply forgotten and overlooked, in large measure because of a mere play on the words "public lands"—which was actually a verbalism resting on an assumption that for 20 years

prior to the *Pelton Dam* decision had been without factual support.

Third. In view of the circumstance that this Court in *Pelton Dam* quite overlooked the jurisdictional aspects of its earlier line of cases, it would be churlish to take to task the court below for an identical oversight in this case. Here the court of appeals said (Pet. App. A8):

> "In 1890 and 1892, the State of Nevada by selection acquired fee simple title from the United States Government to the land now owned by the Cappaerts. The Desert Land Act of 1877, 43 U. S. C. §321 (1964), as construed in *California Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U. S. 142, 162 (1935), provides that a transfer of federal land out of the public domain after the date of the Act would not pass title to any unappropriated appurtenant water; water rights would be determined under the law of the state in which the land was located. Because water rights were severed from title in 1877, Nevada got no water rights in 1890 and 1892 when it acquired title to the Cappaerts' land. Therefore, the Cappaerts, as successors in interest, possess no water rights unless they or a predecessor acquired such rights under Nevada law."

The difficulty with the foregoing excerpt is that it confuses jurisdiction with proprietary rights. True, Nevada as a proprietor could acquire no water rights when the United States conveyed lands to it under the 1880 lieu selection act (*supra*, page 7). But, even before those conveyances were executed, Congress had granted Nevada jurisdiction to determine the disposition of

the water rights pertaining to all land within its boundaries. That was the plain meaning of the Desert Land Act as declared by this Court in *California Power* in 1935.

Consequently, while the Cappaerts agree that they obtained no water rights by virtue of the patents originally issued to the State of Nevada, they do assert that, when the United States executed those patents, it retained no water rights that it could thereafter reserve to itself in 1952.

D. Since 1955, the Implied Reservation Doctrine Has, Like Aaron's Rod, Swallowed Up All Other Water Right Doctrines

The implied reservation doctrine, the asserted rule (Br. Op. 4) "that the United States may, by withdrawal of public lands, impliedly reserve such appurtenant unappropriated waters as are required to accomplish the purpose for which the lands are reserved", was applied below so as to acquire, not simply surface waters, not only all underground water underlying the Devil's Hole tract of 40 acres set aside in 1952, but also every drop of underground water that may be hydraulically connected therewith, in this case all such water percolating in an aquifer 4500 square miles in extent.

How could such a far-reaching and extreme doctrine, one that plainly unsettles Federal-State relationships in the Western third of the entire nation, ever have developed?

The first formulation of the implied reservation doctrine dates from 1908, more than a quarter of a century before *California Power* was decided. *Winters v. United*

States, 207 U. S. 564. There an agreement with an Indian tribe, modifying an earlier treaty, had effected an exchange of lands; and the question was whether the lands given the Indians pursuant to that exchange had been conveyed without any water appurtenant thereto. "The lands were arid, and, without irrigation, were practically valueless" (p. 576). Since (*ibid.*) "By a rule of interpretation of agreements and treaties with the Indians, ambiguities occurring will be resolved from the standpoint of the Indians", the Court construed the exchange to carry with it an implied reservation of water rights.

A similar result was reached in *Arizona v. California,* 373 U. S. 546, where the Court held that when Congress created certain Indian reservations on the Colorado River—significantly, a navigable stream—it intended to reserve enough river water to irrigate the land on those reservations. The Court said (pp. 598-599):

> "It is impossible to believe that when Congress created the great Colorado River Indian Reservation and when the Executive Department of this Nation created the other reservations they were unaware that most of the lands were of the desert kind—hot, scorching sands—and that water from the river would be essential to the life of the Indian people and to the animals they hunted and the crops they raised."

The Cappaerts indicate below (Point II, pp. 51-56) why in their view the implied reservation doctrine applies only to Indian situations, and that it must be thus limited. Here they address themselves to a second aspect of *Arizona v. California,* that involving non-Indian lands, to the portion of the Court's opinion

wherein it was held that the principle governing water rights for Indian reservations was likewise applicable to other federal enclaves.

Examination of the Special Master's report in that case (No. 8, Orig., Oct. T. 1962; pp. 291-295, 298-300) shows that he followed the Indian cases in holding that water could similarly be reserved for other federal purposes. He said (pp. 292-293):

> "It is necessary to adjudicate the water rights of the Lake Mead National Recreation Area for the same reason that the rights of the mainstream Indian Reservations must be adjudicated. I conclude that the United States had the power to reserve water in the Colorado River for use in the Lake Mead National Recreation Area for the same reasons that it could reserve such water for Indian Reservations. Although the authorities discussed above which establish the reservation theory all involved Indian Reservations, the principles seem equally applicable to lands used by the United States for its other purposes. If the United States can set aside public land for an Indian Reservation and, at the same time, reserve water for the future requirements of that land, I can see no reason why the United States cannot equally reserve water for public land which it sets aside as a National Recreation Area. *Cf. F. P. C. v. Oregon,* 349 U. S. 435 (1955)."

This Court adopted the Special Master's conclusions, saying (373 U. S. at 601; italics supplied):

> "We agree with the conclusions of the Master that the United States *intended* to reserve water sufficient for the future requirements of the Lake

> Mead National Recreation Area, the Havasu Lake National Wildlife Refuge, the Imperial National Wildlife Refuge, and Gila National Forest."

Again, all of these areas abut the Colorado River, a navigable stream.

None the less, inasmuch as the Government and the court below are giving this portion of *Arizona v. California* a wider significance than the Cappaerts believe that it properly has, they have italicized the word "intended" in the foregoing passage because, as they go on to show in Point III, pp. 56-79, below, it is simply impossible to deduce or infer from the terms of the 1952 Proclamation the slightest trace of an intent to reserve land, much less water, for a purpose then not yet embraced by legislation, nor indeed even mentioned in that document as an object sought to be preserved.

Finally, in the two most recent cases here (*United States v. District Court for Eagle County*, 401 U. S. 520; *United States v. District Court for Water Div. No. 5*, 401 U. S. 527), all that was actually decided was that the United States had consented to be sued for adjudication of water rights pursuant to the terms of the so-called McCarran amendment (43 U. S. C. §666(a); Pet. App. No. 74-1304, xxv).

The Court assumed in both cases (401 U. S. at 522-523, 528-529) that the United States had validly reserved water rights in connection with its several federal enclaves, and the Government was told that the scope of all such reservations was a federal question,

reviewable by this Court following final state court adjudication.

The late Mr. Justice Harlan, concurring in both cases, said (401 U. S. at 530):

> "I join in the opinions of the Court in these cases, explicitly disclaiming, however, the intimation of any view as to the existence and scope of the so-called 'reserved water rights' of the United States, either in general or in the particular situations here involved."

But neither that concurrence nor the Court's opinion in either case, reflects the slightest articulated consideration, much less deliberate decision, of the head-on conflict between the implied reservation doctrine and the subjection of non-navigable water to state law pursuant to Congressional mandate, as the latter was construed in *California Power*, 295 U. S. 142, and in the cases that followed it for 16 years.

The non-Indian aspect of *Arizona v. California*, 373 U. S. 546, 601, which rests on the navigable character of the Colorado River, is not in conflict with anything in *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142; the earlier case was expressly limited to the effect of the Desert Land Act on non-navigable waters. It is only the *Pelton Dam* case, *Federal Power Comm. v. Oregon*, 349 U. S. 435, that is truly inconsistent with the basic doctrine of *California Power*, a consequence of the mistake of fact plus oversight of law that underlay the *Pelton Dam* decision.

We need spend but little time on the two district court citations relied on both by the court below (Pet. App. A6) and by the government here (Memo. Op. No. 74-1304 at 8).

1. *State of Nevada v. United States,* 165 F. Supp. 600 (D. Nev.), which involved rights to underground water for a naval ammunition depot, a tract over which Nevada had ceded exclusive jurisdiction several years before its 1939 act relating to underground water (Pet. App. D7-D8; Pet. App. No. 74-1304, xxvii), may perhaps be explained on the footing of intent. But that case was affirmed on the wholly different ground that there was no jurisdiction to entertain the action. 279 F. 2d 699 (C. A. 9). Thus every word said by the district court in that case is purest dictum, nothing more.

2. *Tweedy v. Texas Company,* 286 F. Supp. 383 (D. Mont.), was another Indian case, involving the same agreement with the Blackfeet Tribe that was considered in the *Winters* case in 207 U. S., *supra,* pp. 45-46; *infra,* pp. 51-52.

Neither case, then, is of much if indeed any authority, and reliance on such slim reeds simply underscores the significance of what the court below wholly ignored, what the Government refuses to face, and what this Court must now determine.

That is the issue, central to this case, of the utter inconsistency in non-Indian cases between the Congressional mandate severing land and water in respect of publicly-owned lands in the arid-land states, and subjecting all such non-navigable water to state law; and the later doctrine, first adopted under a combined mistake of fact plus a misreading of earlier rulings, but since then blindly followed—the contrary notion that,

whenever the United States reserves a tract of its own land for a federal purpose, it to that extent deprives the state in which that tract is located of all jurisdiction over the disposition of non-navigable waters not only adjacent to but also underlying the land so reserved.

II.

THE IMPLIED RESERVATION DOCTRINE IS PROPERLY APPLICABLE ONLY IN SITUATIONS INVOLVING INDIANS, WHO AS WARDS OF THE NATION ARE THE BENEFICIARIES OF EVERY RULE OF CONSTRUCTION, AND WHOSE INTERESTS BEING NATIONAL ARE PARAMOUNT TO THOSE OF THE STATES; AND THAT DOCTRINE SHOULD IN CONSEQUENCE BE STRICTLY LIMITED TO SUCH SITUATIONS

In assimilating the doctrine that upheld an implied reservation of water in instances where conveyances to Indians were in question to similar reservations where public land was set apart for other federal purposes, the Special Master in *Arizona v. California,* 373 U. S. 546, said (No. 8, Orig., Oct. T. 1962; Report, p. 293):

> "Certainly none of the parties have suggested a tenable distinction between the two situations."

With all deference to the eminent counsel who conducted that landmark litigation, the Cappaerts venture precisely such a distinction.

First. As has been shown (above, pp. 45-46), the doctrine of implied reservation of water rights originated in a case involving an agreement with the Blackfeet Indians. *Winters v. United States,* 207 U. S. 564. Had no water been impliedly reserved there, the lands conveyed to the Indians, being virtually valueless without

water, could simply not have been used for the agricultural purposes for which they had been transferred. "The lands were arid and, without irrigation, were practically valueless. And yet, it is contended, the means of irrigation were deliberately given up by the Indians and deliberately accepted by the Government" (p. 576). Accordingly, since (*ibid.*) "By a rule of interpretation of agreements and treaties with the Indians, ambiguities occurring will be resolved from the standpoint of the Indians", the Court construed the exchange to carry with it an implied reservation of appurtenant water rights. As the Cappaerts have noted, this was a 1908 case, well before the *California Power* decision in 1935.

The same rule was followed in other situations involving Indians (*United States v. Walker River Irr. Dist.*, 104 F.2d 334 (C. A. 9); *United States v. Ahtanum Irrigation Dist.*, 236 F.2d 321 (C. A. 9), certiorari denied, 352 U. S. 988; *Tweedy v. Texas Co.*, 286 F. Supp. 383 (D. Mont.), after which it was reapplied in the Indian reservation portion of *Arizona v. California*, 373 U. S. 546, 598-599, quoted above at p. 46.

As a matter of completeness, mention should perhaps also be made of *United States v. Powers*, 305 U. S. 527, which followed the *Winters* case, although with a significant difference. In *Winters*, the exchange of land took place after the Desert Land Act that had ceded jurisdiction over non-navigable waters on the public domain to the states, see pp. 29-37, *supra;* in *Powers*, however, there was involved the Crow Treaty of 1868, which antedated the Desert Land Act. At that time, therefore, the implied reservation of water for the Indians' benefit did not and could not impinge on state or (as was alone involved there in 1868) on territorial power.

At any rate, the obvious rationale of all the foregoing cases is the rule, repeatedly announced and applied in more than a score of Indian cases here, that "Doubtful expressions are to be resolved in favor of the weak and defenseless people who are the wards of the nation, dependent upon its protection and good faith." *McClanahan v. Arizona State Tax Comm'n*, 411 U. S. 164, 174. It would unduly extend this already lengthy brief to cite additional decisions to the same effect; all those are conveniently collected in vol. 8 of the *Lawyers' Edition Digest of U. S. Supreme Court Reports*, under Indians §§ 28, 21, and 13.

No similar rule of beneficent construction, it needs hardly to be added, applies to the United States itself. That powerful and omnicompetent entity cannot claim to be thus favored when it withdraws lands, not for the benefit of its Indian wards, but only for other federal purposes.

Second. The Cappaerts have shown above (pp. 29-37) how jurisdiction over non-navigable waters on publicly owned lands passed to the states by virtue of, *inter alia*, the Desert Land Act of 1877. It may well be inquired, therefore, how that proposition can be squared with the unquestioned doctrine that water rights could still be impliedly reserved for the benefit of Indian wards after 1877. If, as the Cappaerts contend, disposition of all non-navigable water had been vested in the states by 1877, how then could the United States after that date reserve any water whatever, even for Indian purposes?

The answer to this apparent inconsistency is not difficult to find. Indian rights are national in nature, and prevail over those of the states; this has been fun-

damental since the time of Chief Justice Marshall. *Worcester v. Georgia,* 6 Pet. 515. Indeed, there is an unbroken line of decisions to that same effect, through, in recent years, *Williams v. Lee,* 358 U. S. 217, and *Warren Trading Post Co. v. Tax Comm'n,* 380 U. S. 685, and terminating up to now—here also—with *McClanahan v. Arizona State Tax Comm'n,* 411 U. S. 164.

It is that principle, first enunciated by the Great Chief Justice, which explains why, even in respect of agreements, conveyances, and withdrawals subsequent to the Desert Land Act of 1877, the United States can impliedly reserve for the benefit of its Indian wards non-navigable waters that, for all other purposes, remain within the exclusive jurisdiction of the arid-land states.

Third. This result may not be entirely logical, but the same comment can fairly be made in respect of much other accepted Indian law. Thus, although a state's writ does not run on an Indian reservation, see the *Williams, Warren Trading Post,* and *McClanahan* cases just cited, Indians living on those reservations who are exempt from state taxes and from state judicial process can nonetheless elect and become county supervisors who fix those taxes for non-Indians, and whose powers have a substantial impact on the courts that function within their county. *Shirley v. Superior Court, &c.,* 109 Ariz. 510, 513 P.2d 939, certiorari denied *sub nom. Minyard v. Shirley,* 415 U. S. 917.

Similarly, although racial discrimination of every nature whatsoever has been under an increasingly restrictive constitutional ban for over twenty years, Indian preference in Bureau of Indian Affairs employment, a

condition that obviously discriminates against all non-Indians whether black or white, has been just recently sustained. *Morton v. Mancari,* 417 U. S. 535.

The touchstone, then, of Indian law, is that it is *sui generis.* Or, as Mr. Justice Holmes felicitously expressed the matter for the Court over half a century ago (*New York Trust Co. v. Eisner,* 256 U. S. 345, 349), "Upon this point a page of history is worth a volume of logic."

In sum, the Cappaerts' basic position is that, since jurisdiction over all non-navigable waters within the exterior limits of Nevada was ceded to that state in 1877; since Nevada exercised that jurisdiction by the passage of its 1913 and 1939 water appropriation acts (*supra,* pp. 36-37); and since the United States admittedly never proceeded under either of those enactments to obtain any water rights either appurtenant to or underlying Devil's Hole, no such water rights could be reserved by or for the benefit of the United States by reason of the withdrawal of the Devil's Hole tract in 1952, a withdrawal that obviously touched no Indian rights whatever.

Or, more succinctly, no water rights were or could have been reserved by the United States in 1952 because it then had no such rights available for reservation.

That conclusion follows even more clearly when it is borne in mind that the Devil's Hole withdrawal was made on January 17, 1952 (Pet. App. C1-C3), less than nine months after this Court had on May 7, 1951, by summarily dismissing the appeal in *Dority v. New Mexico ex rel. Bliss, State Engineer,* 341 U. S. 924, with the mere citation of the *California Power* case,

emphatically reaffirmed the continuing validity of that decision's doctrine, which gave effect to the cession of all jurisdiction over non-navigable waters to the arid-land states.

III.

IF, HOWEVER, THE IMPLIED RESERVATION DOCTRINE IS TO BE EXTENDED TO EVERY SITUATION WHERE AN INTENT TO APPROPRIATE WATER CAN FAIRLY BE IMPLIED FROM THE INSTRUMENT EFFECTING A LAND WITHDRAWAL, THEN THE 1952 PROCLAMATION HERE, WHICH SHOWS ON ITS FACE THAT IT DID NOT DESIGNATE THE PUPFISH EITHER AS OBJECTS OF SCIENTIFIC INTEREST OR DECLARE THEM WORTHY OF PROTECTION, PLAINLY DID NOT INTEND TO RESERVE ALL UNDERGROUND WATER FROM AN AQUIFER 4500 SQUARE MILES IN EXTENT, FOR A PURPOSE NOT RECOGNIZED BY CONGRESS UNTIL 1966, NOR FOR THE BENEFIT OF A MARINE SPECIES NOT DECLARED ENDANGERED UNTIL 1970

Even if the Cappaerts' preceding contentions should be rejected, even if this Court should hold that, notwithstanding the Desert Land Act of 1877 and notwithstanding the doctrine of state jurisdiction formulated in *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142, the sole criterion for the implied reservation of water rights in connection with any reservation of public lands for any purpose whatsoever is whether the Government "intended" to reserve such water rights in connection with the withdrawn land, the ruling below is still wrong, and must in consequence be reversed.

For, as the Cappaerts will now demonstrate in detail, the terms of the 1952 Proclamation utterly negative any intent whatsoever to reserve vast quantities of under-

ground water, much less to do so for the benefit of a peculiar breed of desert fish, which it did not even mention as an independent object of scientific interest, whose protection was never even authorized by Congress before 1966, and who were not themselves effectively declared an endangered species pursuant to such authorization before 1970.

A. The 1952 Proclamation Could Not Have "Intended" to Reserve Any Water Rights Because at That Time the California Power Doctrine, That Congress Had Ceded to the Arid-Land States All Jurisdiction Over Non-Navigable Waters, Was Still Fully in Force

Even more important than textual analysis is consideration of the scope of the 1952 Proclamation in the context of its contemporary legal climate.

The date of that instrument is January 17, 1952 (Pet. App. C3).

Less than nine months previously, on May 7, 1951, the Court had, in *Dority v. New Mexico ex rel. Bliss, State Engineer*, 341 U. S. 924, dismissed the appeal from *State v. Dority*, 55 N. M. 12, 225 P.2d 1007, on the ground that it did not involve a substantial federal question, citing *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142.

Thus, when the 1952 Proclamation was issued, it was still the law that, when Congress effected the severance of land and water on the public domain, it had ceded jurisdiction over all such water, being non-navigable, to the several arid-land states. See pp. 29-37, *supra*. And, at that time, the single implied reservation case up to then decided, which antedated *California Power*

by over a quarter of a century, was expressly rested on the rule that agreements with Indian tribes were to be construed in those tribes' favor. *Winters v. United States,* 207 U. S. 564.

The first extension of the implied reservation doctrine, the first limitation on the cession of jurisdiction doctrine (however unwitting it may have been), followed the basic 1952 Proclamation here by more than four years. *Federal Power Comm. v. Oregon,* 349 U. S. 435 (the *Pelton Dam* case).

Consequently, looking at the 1952 Proclamation in the light of what was intended thereby at the precise moment when it was promulgated, any knowledgeable lawyer would have been bound to conclude that it reserved only the 40-acre tract specified therein, and that it never for a single moment "intended" to reserve even a single drop of water. For, with the limited exception of lands involving agreements with the Indians, jurisdiction over all non-navigable water, by every pronouncement of this Court up to that time, had long since been transferred by Congress to the several arid-land states.

B. The Text of the 1952 Proclamation, the Sole Basis of the Government's Case, Mentions Pupfish Only to Confirm the Remarkable Geological Significance of the Pool It Reserved, and Neither Declares Them to Be of Scientific Interest nor to Be Themselves Worthy of Protection

It is common ground between the parties that, in the court below, "The existence of the government's water right was based not on the Endangered Species Acts but on the establishment of the Devil's Hole National Monument in 1952" (Br. Op. 4 note 3). There, however, agreement ends, because in the Cappaerts' view both courts below egregiously misread both the terms and the statutory setting of the 1952 Proclamation (Pet. App. C1-C3).

To begin with, the Proclamation declares that the *pool* is remarkable, and recites that the "said *pool* is of such outstanding scientific importance that *it* should be given special protection, and such protection can be best afforded by making the said forty-acre tract containing the pool a part of said [Death Valley] monument" (Pet. App. C2, italics added).

The only reference in the Proclamation to the pupfish appears in the fourth of its five preambles, where they are mentioned solely as "geologic evidence"—not as biologic or zoologic or ichthyologic evidence—to confirm "that *this subterranean pool* is an integral part of the hydrographic history of the Death Valley region" (Pet. App. C1, C2; italics added).

There is not a single word in the 1952 Proclamation designating the pupfish as independent objects of scientific interest, much less a syllable therein declaring them worthy of or entitled to protection. The pupfish are referred to simply as geologic evidence enhancing and confirming the scientific importance of the pool being reserved.

Let us leave the preambles, and turn to the text.

The Proclamation simply reserves "the following-described tract of land in Nevada", identifying it by township, range, and section.

Unauthorized persons are warned "not to appropriate, injure, destroy, or remove any feature of this addition to the said [Death Valley] monument and not to locate or settle on any of the *lands* thereof". The Cappaerts

have italicized the word "lands" to emphasize that there was no warning whatever against pumping underground water from wells miles away from the newly reserved tract.

The Cappaerts emphasize even more strongly that both the court below (Pet. App. A7) and the Government here (Br. Op. 5) badly misread the 1952 Proclamation.

1. Here is the first sentence of the pertinent paragraph in the opinion below (Pet. App. A7):

> "The fundamental purpose of the reservation of the Devil's Hole pool was to assure that the pool would not suffer changes from its condition at the time the Proclamation was issued in 1952; that condition included the pool's unique inhabitants, the pupfish."

The foregoing quotation is, in its entirety, not simply interpolation but indeed invention. The court below was actually rewriting the Proclamation, because none of the matter just quoted from the opinion can possibly be found in the language of the earlier document.

Then the opinion continues (Pet. App. A7):

> "The Proclamation referred to the significant contribution of the pupfish to the scientific importance of the Devil's Hole pool; it implicitly reserved enough groundwater to assure preservation of the pupfish."

The clause after the semicolon is a conclusion of law, adequately answered throughout this brief; but the first clause is a transparent misreading of the document. The Proclamation said that the presence of the pupfish supplied geologic evidence confirming the scientific importance of the pool, not that the pupfish contributed to that importance. The fifth preamble, about to be quoted, is simply not susceptible of the meaning that the court below fashioned for it (Pet. App. C1-C2):

> "WHEREAS the geologic evidence that this subterranean pool is an integral part of the hydrographic history of the Death Valley region is further confirmed by the presence in this pool of a peculiar race of desert fish, and zoologists have demonstrated that this race of fish, which is found nowhere else in the world, evolved only after the gradual drying up of the Death Valley Lake System isolated this fish population from the original ancestral stock that in Pleistocene times was common to the entire region;"

2. The government also misreads the Proclamation, though perhaps not with equal disregard of its text (Br. Op. 5, italics added):

> "As to the scope of the proclamation, it is clear from its wording that President Truman intended to preserve Devil's Hole in its natural setting and that *one of the primary reasons the hole and pool were deemed worthy of protection was precisely because the unique pupfish live in it.*"

Once again, the text does not support the gloss now placed upon it. The text clearly shows that the pool was deemed worthy of protection because *it* was deemed "remarkable," because *it* was "a unique subsurface remnant", and because *it* was "of such outstanding scientific importance" (Pet. App. C1-C2)—qualities that were confirmed, not "because the unique pupfish live in it" (Br. Op. 5), but simply because

their presence confirmed the geologic evidence of the pool's being "an integral part of the hydrographic history of the Death Valley region".

If the above few paragraphs appear labored, it is because it is frequently a laborious task to point out precisely how and why a document has been distorted and its meaning altered; textual criticism will never read as smoothly as a novel—although indeed the qualities attributed to the 1952 Proclamation by the court below and by the Government in this Court do involve much of the purely fictitious.

Wishful thinking is, of course, a fact of life in a troubled world. But it is a poor tool for ascertaining the meaning of an official document written in clearly expressed English.

C. The Record Lays Bare the Dissimulation That Underlay the Preparation of the 1952 Proclamation

The Cappaerts could mention, though they need not invoke, the rule that, when the body of any document is clear—and there is surely nothing even vaguely ambiguous in the operative paragraphs of the 1952 Proclamation that begin with "NOW, THEREFORE, I HARRY S. TRUMAN"—when the body of any document is clear, its scope cannot be varied by anything in a preamble. *Price v. Forrest,* 173 U. S. 410, 427; *Yazoo Railroad Co. v. Thomas,* 132 U.S. 174, 188. For, even if the law were otherwise, there is, as has been shown, absolutely nothing in the pupfish preamble that even purports to include them along with the pool as being of scientific interest and hence as being worthy of protection.

This record explains that omission. This record shows that the enthusiastic ichthyologist who after a long campaign extending over about a dozen years persuaded the National Park Service to seek the 1952 Proclamation was well aware that the law as it then stood did not empower that agency to obtain land for the purpose of protecting endangered species. Consequently "the one that was chiefly instrumental in getting the Devil's Hole set aside * * * had come up with this idea of pointing out the travertine deposit as a means of getting Devil's Hole set aside" (A. 131).

The record further shows that this step "was done ostensibly because of the unique travertine limestone formations, but not to protect *Cyprinodon diabolis,* the unique fish inhabitant" (Defts. 1972 Ex. B at A. 319).

The record additionally shows (A. 169) that, about a dozen years after the sponsors of the Devil's Hole reservation first urged its establishment, they "were successful in convincing the [National Park] service that the hole was worthy of inclusion in the monument. In doing so, they cited an unusual travertine limestone formation in the hole as a pretext, since park service policy at that time did not consider saving a rare animal species sufficient reason for acquiring land."

"Had come up with this idea", "ostensibly", "pretext"—such words are, all too plainly, the language of subterfuge. Yet that technique succeeded brilliantly in the court below, which held that, although the sponsor of the 1952 Proclamation fully recognized that national monuments could not then be lawfully created to protect endangered species, that Proclamation would nonetheless be construed to reach precisely that legally unattainable result.

Rarely, if indeed ever before, have contrivance, cunning, and guile achieved such signal success in a court of the United States.

D. Both the Text and the Legislative History of the Only Statute on Which the 1952 Proclamation Purported to Rely Negative Any Authority to Set Aside Public Lands for the Protection of Living Species, Much Less Any Appurtenant Water

Not only did the court below badly misread the 1952 Proclamation, it grossly misapplied the statute on which that Proclamation purported to rely.

That fault was primarily the consequence of inadequate and mistaken technique, specifically of citing every statutory provision to "U. S. C. (1974)" or to "U. S. C. (1964)", as though the United States Code represented a single act of creation, rising like Venus fully formed from the foam.

Such citations in the opinion below thus compress numerous statutory enactments over a 96-year long period into a single simultaneous expression: The Desert Land Act of 1877 (Pet. App. A8); the 1906 Act for the preservation of American antiquities (Pet. App. A5); the 1916 Act establishing the National Park Service (Pet. App. A7); the McCarran Amendment of 1952 (Pet. App. A12); and the last of the three Endangered Species Acts, that of 1973 (Pet. App. A2).

Citations of that character to the Code alone inevitably result in error, if indeed they do not affirmatively

invite it—because an approach thus undiscriminating violates two settled rules of statutory construction.

First, the Code is, by its own terms (1 U. S. C. §204(a)), only *prima facie* the law—unless actually reenacted as positive law, which is not yet true of either Title 16 (Conservation) nor of Title 43 (Public Lands). See *Stephan v. United States,* 319 U. S. 423, 426.

Second, in order to ascertain the true intent of Congress, subsequent codification, even when it constitutes positive law, must be disregarded. *Nye v. United States,* 313 U. S. 33; *Williams v. United States,* 327 U. S. 711.

Accordingly, the Cappaerts here have set out in the original the only enactment relied on as authority in the text of the 1952 Proclamation, the 1906 Act for the preservation of American antiquities (Pet. App. D1-D2).

The first section of that Act imposes penalties on "any person who shall appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States."

The second section authorizes the President "to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as

a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected." A proviso then authorized the acceptance of tracts in private ownership on which such objects were situated.

The third section provides for the issuance of "permits for the examination of ruins, the excavation of archeological sites, and the gathering of objects of antiquity on such lands" to qualified institutions, provided that "the examinations, excavations, and gathering are undertaken for the benefit of reputable museums, universities, colleges, or other recognized scientific or educational institutions, with a view to increasing the knowledge of such objects, and that the gatherings shall be made for permanent preservation in public museums."

The Cappaerts pause to emphasize that on the very face of the statute under whose sole authority Devil's Hole was reserved, there is not only no mention whatever of living creatures, who plainly would not be described as suitable "for permanent preservation in public museums", but that there is an express command that the parcels to be reserved for national monument purposes shall "in all cases be confined to the smallest area compatible with the proper care and management of the objects to be protected." Thus the statute necessarily relied upon by the Government here wholly negatives any reservation whatever for the benefit of pupfish, much less an implied reservation in connection therewith of all underground water from an aquifer

72,000 times greater than the tract actually reserved (1/16 sq. mi. as opposed to 4500 sq. mi.).

Indeed, even on the face of the statute, within its own four corners, one will search in vain for the slightest suggestion that it was ever designed to affect even a single drop of water anywhere.

The legislative history of the 1906 Act strongly emphasizes its restricted scope and its essentially archeological character.

That Act originated as S. 4698 of the 59th Congress, and the first committee report thereon (Sen. Rep. No. 3797, 59th Cong., 1st sess.) simply said:

> "This measure has the hearty support of the Archaeological Institute of America, the American Anthropological Association, the Smithsonian Institution, and numerous museums throughout the country, and in view of the fact that the historic and prehistoric ruins and monuments on the public lands of the United States are rapidly being destroyed by parties who are gathering them as relics and for the use of museums and colleges, etc., your committee are of the opinion that their preservation is of great importance."

Pursuant to that report, the bill passed the Senate without amendment or even a word of debate (40 Cong. Rec. 7331).

The House Report (H. R. Rep. No. 2224, 59th Cong., 1st sess.) concerned itself almost exclusively

with the archeological aspects of the proposed legislation; here are representative excerpts (p. 1):

> "The various archeological societies of the United States in the Fifty-eighth Congress presented the subject of the enactment of a bill along the lines proposed in the present bill.
>
> * * * * * * *
>
> "The bill as above amended will, in the opinion of your committee, accomplish the purpose desired. There are scattered throughout the Southwest quite a large number of interesting ruins. Many of these ruins are upon the public lands, and most of them are upon lands of but little present value. The bill proposes to create small reservations reserving only so much land as may be absolutely necessary for the preservation of these interesting relics of prehistoric times."

Included in the House Report at pp. 2-3 was a "Memorandum concerning historic and prehistoric ruins of Arizona, New Mexico, Colorado, and Utah, and their preservation", prepared by Professor Edgar L. Hewett, formerly president of the Normal University of New Mexico, and which stated in part:

> "The importance of the large number of historic and prehistoric ruins scattered over the semiarid regions of the southwestern part of the United States has gradually come to be recognized. Every cliff dwelling, every prehistoric tower, communal house, shrine, and burial mound is an object which can contribute something to the advancement of knowledge, and hence is worthy of preservation. Knowledge of the extent, location, and nature of these ruins has been accumulating for

> many years. We now know them to be very numerous and of great value.
>
> * * * * * * *
>
> "Unquestionably some of these regions are sufficiently rich in historic and scientific interest and scenic beauty to warrant their organization into permanent national parks. Many others should be temporarily withdrawn and allowed to revert to the public domain after the ruins have been examined by competent authorities, the collections thereon properly cared for, and all data that can be secured made a matter of public record."

On the House floor, the Senate bill was managed by Mr. Lucey of Iowa; when it was called up the following colloquy took place (40 Cong. Rec. 7888):

> "Mr. STEPHENS of Texas: Will that take this land off the market, or can they still be settled on as part of the public domain?
>
> "Mr. LUCEY: It will take that portion of the reservation out of the market. It is meant to cover the cave dwellers and cliff dwellers.
>
> "Mr. STEPHENS of Texas: How much land will be taken off the market in the Western States by the passage of the bill?
>
> "Mr. LUCEY: Not very much. The bill provides that it shall be the smallest area necessary for the care and maintenance of the objects to be preserved.
>
> "Mr. STEPHENS of Texas: Would it be anything like the forest reserve bill, by which seventy or eighty million of acres of land in the United States have been tied up?

"Mr. LUCEY: Certainly not. The object is entirely different. It is to preserve these old objects of special interest and the Indian remains in the pueblos in the Southwest, whilst the other reserves the forests and the water courses."

Notwithstanding—or, more likely, without knowledge of the foregoing legislative history—the Court in *Cameron v. United States,* 252 U. S. 450, 455-456, held that the 1906 Act authorized the creation of the Grand Canyon National Monument:

> "The defendants insist that the monument reserve should be disregarded on the ground that there was no authority for its creation. To this we cannot assent. The act under which the President proceeded empowered him to establish reserves embracing 'objects of historic or scientific interest'. The Grand Canyon, as stated in his proclamation, 'is an object of unusual scientific interest'. It is the greatest eroded canyon in the United States, if not in the world, is over a mile in depth, has attracted wide attention among explorers and scientists, affords an unexampled field for geologic study, is regarded as one of the great natural wonders, and annually draws to its borders thousands of visitors."

As a matter of statutory construction in the strict sense of ascertaining the intent of Congress, it seems clear that the "other objects of historic or scientific interest" mentioned in Section 2 of the 1906 Act, which authorized the President to proclaim reservations, were meant to include only what could fairly be comprehended within "any object of antiquity" whose destruction, &c., was prohibited by Section 1, and within

the "objects of antiquity" that Section 3 directed to be saved "for permanent preservation in public museums". That conclusion is strongly fortified by the committee reports and by the only floor debate on the measure.

But, when the *Cameron* case was decided, more than half a century ago, resort to legislative history was far less common than it has since become; Cameron appears not to have invoked it in argument, see 252 U. S. at 454; nor had anyone then yet formulated "the canon of contruction of the wag who said, when the legislative history is doubtful, go to the statute." *Greenwood v. United States,* 350 U. S. 366, 374. Consequently, in a very real sense, the *Cameron* case is itself an artifact, a legal survival from an earlier era of statutory interpretation.

The Cappaerts, however, are not disposed to assail the legitimacy of the Grand Canyon at this point, "to question which would be to lay hands on the Ark of the Covenant" (Holmes J. in *Springer v. Philippine Islands,* 277 U. S. 189, 209, 211). Because, however doubtful in law its original creation, its existence as an area reserved for the enjoyment and instruction of the public has been repeatedly confirmed and ratified by Congress, which has from time to time enlarged its exterior boundaries. 16 U. S. C. §§221-228.

Devil's Hole, however, is different, legally and factually.

The factual difference is that while the Grand Canyon is "one of the great natural wonders" that "annually draws to its borders thousands of visitors"—actually, at this time, millions—the "remarkable underground pool known as Devil's Hole" (Pet. App. C1) is fenced in by lock and key and can be viewed only by the elite of the

zoological and the ichthyological communities (*supra,* p. 10).

The legal difference is that there is no trace of Congressional ratification of the Devil's Hole addition to the Death Valley National Monument.

Those differences may well be sufficient to induce the Court to declare that the 1906 Act for the preservation of American antiquities extends only to the artifacts that are appropriate "for permanent preservations in public museums", and that it does not include merely natural phenomena, much less underground water or indeed non-navigable water of any kind.

But that is a question that the Cappaerts need not pursue. It is sufficient for them that the 1952 Proclamation nowhere, either in its preambles or in any portions of its operative text, ever declared the pupfish themselves to be objects of historic or scientific interest. Indeed, if that Proclamation had even purported to do so, then such a declaration would have been wholly unauthorized by the terms of the only legislation on which it relied, and wholly beyond the underlying purpose of that statute as disclosed by its luminous legislative history, one that is quite free from the slightest doubt.

The Cappaerts now deem it appropriate to mention, simply to show that it has not been overlooked, Section 1 of the 1916 Act creating the National Park Service, now set out in 16 U. S. C. §1 (Pet. App. D6), which indeed provides that "the fundamental purpose" of national parks and monuments is "to conserve the scenery * * * and the wild life therein", and which was in consequence relied on by the court below to reinforce its conclusion that the 1952 Proclamation "implicitly reserved enough groundwater to assure preservation of the pupfish" (Pet. App. A7-A8).

In this Court, also, the Government quotes that statute (Br. Op. 5), somewhat more fully and indeed with emphasis added.

Of course the creation of the National Park Service was intended to continue, through centralized administration, existing protection of bears and bison, of deer and wildcats, and of all other flora and fauna to be found within parks and monuments then in existence. Of course similar protection was to be extended to like reservations thereafter created.

But we are here concerned with the interpretation of a 1952 Proclamation purporting to be issued under authority of the 1906 Act for the preservation of American antiquities. As has been seen (*supra,* pp. 10-11, 58-62), that Proclamation refrained from extending protection to pupfish. Consequently it is not helpful to attempt to include in its text what is not therein, simply by looking to the generalized provision of a measure establishing a new agency, one whose duties would include the operation of many varied areas—national parks, national monuments, national historical areas, national recreation areas, each of which represents a different public interest warranting protection.

If the 1952 Proclamation is fairly read according to its plain terms, then additional reference to 16 U. S. C. §1 is, at its very highest, an ornamental citation. But if that Proclamation is misread, as both the court below and the Government here have plainly done, then reliance on that portion of the statute establishing the National Park Service simply underscores the barrenness of authority to sustain the ruling now being reviewed.

E. Since Congress Did Not Adopt the Protection of Endangered Species as a Public Purpose Until 1966, the Government Is Obviously Urging ex Post Facto Effect for Legislation Subsequent to the 1952 Proclamation

Although the court below asserted (Pet. App. A2) that the pupfish "have been designated an endangered species under the Endangered Species Act of 1973, 16 U. S. C. §1533 (1974), 50 C. F. R. §17", in fact they were so designated in 1970 (35 Fed. Reg. 16047), pursuant to the earlier acts of 1966 and 1969—another error stemming from that tribunal's inadequate statutory techniques.

According to the Government's present position, it places no reliance on any of the three endangered species acts to establish its presently claimed water rights. Opposing certiorari in this case, the Solicitor General said (Br. Op. 4, note 3; italics added):

> "In regard to the Endangered Species Acts dating from 1966, which petitioners discuss at Pet. 18-19, *these Acts were mentioned by the court below only to demonstrate that a congressionally-established public policy would be frustrated should an injunction fail to issue.* The existence of the government's water right was based not on the Endangered Species Acts but on the establishment of the Devil's Hole National Monument in 1952."

There is an obvious inconsistency in the foregoing paragraph: If, as the Government now clearly agrees, whatever rights the United States may have today were fixed in 1952, then those rights cannot possibly be enlarged by any public policy thereafter formulated or established by the Congress. Consequently it cannot be

material to a reservation of land effected in 1952 that, properly construed, such reservation does not effectuate what was not enacted into law until much later. The Government seems to argue that it is seeking to prevent frustration, when, all too clearly, it is actually attempting to give *ex post facto* effect to the endangered species legislation.

F. As Late as 1971, the Government Made No Claim to Any Underground Water on Lands More Than One Mile From Devil's Hole, Because Its Hydrological Experts Then Foresaw No Effect From the Pumping of Water on More Distant Tracts

The record shows how, when the Cappaerts were negotiating their exchange of lands with the Government in 1969, National Park Service protests against any such exchange less than a mile from Devil's Hole because of potential disturbance to the pupfish, resulted in that exchange not including any land less than one mile distant from Devil's Hole (*supra*, pp. 7-8). And the record also shows that the Government's expert hydrologist advised the Cappaerts' representative, two years later and before the drilling of Wells Nos. 16 and 17, that pumping from tracts distant more than one mile from Devil's Hole would not affect the water level in the pool (*supra*, pp. 17-18). That expert's later effort to qualify his earlier statement (*ibid.*) simply recalls the notorious testimonial fudging on the part of the F.B.I. agent that was considered in *Von Moltke v. Gillies*, 332 U. S. 708, 716 note 3, 730.

The Cappaerts draw attention to the foregoing, not to lay the predicate for an estoppel, but simply to emphasize that, if the touchstone of an implied reservation of water is to be intent, see *Arizona v. California*,

373 U. S. 546, 601 (quoted *supra*, pp. 47-48), then plainly, President Truman could not have "intended" in 1952 to reserve underground water from tracts so far distant from the 40 acres being withdrawn that in 1971 the Government's hydrological expert could foresee no effect on the level in Devil's Hole if water were pumped from those tracts.

Thus, even assuming for purposes of present argument that the 1952 Proclamation was "intended" to reserve some water for the pool being set aside by its terms, it is crystal clear, indeed it is pikestaff plain, that the President could not possibly have intended to reserve in 1952 underground water that his most learned and knowledgeable expert even more than 19 years later would have told him would be without any effect on the "remarkable underground pool known as Devil's Hole" (Pet. App. C1).

Yet this was the same expert who the following year testified that pumping anywhere along the 4500 square mile aquifer would eventually affect the water level in Devil's Hole (A. 78-80, 99-101).

In short, whether the 1952 Proclamation be read by the law's so conveniently created individual, the reasonable man, or indeed whether it be examined by one learned in the legal rules governing the public lands of the United States, it is impossible to find in its text anything that by a fair intendment thereof could conceivably be construed to embrace all that the court below—and the Government here—purported to read into it, namely, the prohibition of all pumping of underground water from an aquifer 4500 square miles in extent, whenever such pumping will lower the water level in the Devil's Hole pool—which covers only about 650 square feet (Opinion below, Pet. App. A2).

G. All of the Endangered Species Acts Contain Authority to Condemn Lands for the Purpose of Protecting Such Species, and, Absent Condemnation Proceedings Pursuant to Which the Cappaerts Would Be Compensated, Their Farm Property May Not Be Taken From Them to Protect the Pupfish

There are a number of issues in the present litigation that this Court will never need to determine.

Thus, it will not be called on to decide whether the particular species of pupfish now in the Devil's Hole pool can be successfully transplanted to other pools so that their survival in another habitat will be assured. At the district court hearing in 1973, substantial Government expert testimony was adduced to show that such transplants in the Hoover Dam refugium, made after the 1972 hearing in this case, had apparently been successful (Defts. 1973 Ex. E; 1973 Tr. 50-53, 256-257, 260; not printed).

Nor need the Court determine whether the pupfish now in Devil's Hole can survive there if the water level in that pool is lowered to 3.3 feet, the depth fixed by the court below during the pendency of both sets of appeals, or whether the higher 3.0 level, twice fixed by the district court, is necessary to their survival (*supra*, pp. 20-21).

The Cappaerts deem it appropriate to note in passing that the periodic reports of the Special Master and the pupfish censuses taken during the appellate travel of this litigation indicate that, even at the lower 3.3 level —which constitutes the subsistence and indeed the survival level of their own farm operation—the pupfish population has remained stable.

Those two questions are factual, and were not presented in either petition for certiorari granted in this case.

Finally, this case does not require the Court to arbitrate the conflicting claims of the two endangered species, pupfish and individual farmers, which, in a dramatic sense, the litigation at bar involves. There is no occasion for the Court to weigh the contentions of *Cyprinodon diabolis,* the unique desert fish whose population seems stabilized at 200 or more specimens, against those of the Cappaerts, members of the rapidly declining breed of individual farmers, whose Spring Valley Ranch in Nye County, Nevada, provides the community with wheat and cattle, bread and meat, and moreover keeps over 80 hands constantly employed.

Such a "value judgment" is for the Congress to make —and for the Congress alone.

That body, in three separate Acts for the protection of endangered species, has indicated that the pupfish warrant protection and preservation. But, in each of those Acts, Congress made provision for the acquisition of lands and water and interests therein, by purchase, donation, "or otherwise"—the latter two words a clear if sugar-coated reference to the power of eminent domain (*supra,* pp. 13-15).

If Congress and the Executive concur in holding that the Devil's Hole pupfish are more worthy of continued existence than the Cappaerts' farm, in other words that pupfish are to prevail over people, then they should either purchase that farm together with all its apparent

water rights granted by what on its face was competent authority—or they should condemn the entire enterprise, paying just compensation therefor. Neither, however, whether acting jointly or separately, can take that property away from the Cappaerts without affording them compensation, as the United States has up to now succeeded in doing in the present proceeding.

The Cappaerts are not insensible to the national interest in protecting and preserving endangered species. But if they are required to contribute to such protection at the cost of substantial damage to their own lands and to their own and to their employees' means of livelihood, then they submit that they are entitled to compensation for all such contributions—as is indeed provided for in the several Acts of Congress for the benefit of endangered species.

In sum, the Cappaerts rely upon the principle enunciated by Mr. Justice Brandeis for a unanimous Court in *Louisville Bank v. Radford,* 295 U. S. 555, 602, which requires only minimal paraphrase to be fully applicable to their own situation here:

> "* * * the Fifth Amendment commands that, however great the Nation's need, private property shall not be thus taken even for a wholly public use without just compensation. If the public interest requires, and permits, the taking of property of individual farmers in order to protect the continued existence of pupfish located many miles away, resort must be had to proceedings by eminent domain; so that, through taxation, the burden of the relief afforded in the public interest may be borne by the public."

IV.

INASMUCH AS THE UNITED STATES DID NOT COMPLY WITH STATE PROCEDURES FOR ESTABLISHING THE EXISTENCE OF ITS WATER RIGHTS, AND DID NOT APPEAL FROM THE STATE ENGINEER'S GRANT OF PUMPING PERMITS TO THE CAPPAERTS, IT IS BARRED FROM ASSERTING THOSE IDENTICAL CLAIMS TO WATER IN A LATER INDEPENDENT ACTION

As the Cappaerts have pointed out (*supra,* page 3), they feel free to discuss the above issue, inasmuch as it was presented by the intervenor, the State of Nevada, in its petition in No. 74-1304, which sought and obtained review of the identical judgment that they attack in their own case, No. 74-1107.

Both sets of petitioners, therefore, join in contending that, since the United States never proceeded under Nevada law to establish its rights to the claimed underground water, and, since it failed to appeal its unsuccessful protests over the grant of such water rights to the Cappaerts, it cannot do so now in this later, independent, and wholly collateral proceeding. That contention rests on two grounds, which will be discussed seriatim, although the second is probably simply a specialized application of the first.

A. Where a Specific Administrative Procedure Has Been Prescribed for the Adjudication of Particular Claims and Contentions, the Losing Party Cannot Thereafter Relitigate the Same Subject-Matter in an Independent Judicial Proceeding

The contention contained in the foregoing subheading can be set forth in virtually syllogistic fashion.

1. By the Desert Land Act of 1877 at the latest, Congress had granted to the several arid-land states

and territories all jurisdiction over non-navigable waters on the public domain. *California Power Co. v. Beaver Cement Co.*, 295 U. S. 142, and cases following it, *supra,* pp. 29-37.

2. Where, as here, state law prescribes an administrative procedure to be followed as a prerequisite to the establishment of water rights, in this instance ch. 533 and 534, Nev. Rev. Stat., then such procedure must be followed by every claimant seeking such rights, and independent judicial proceedings collaterally attacking the earlier results cannot be maintained.

The authorities supporting the second proposition are legion, and over nearly 60 years have dealt with many and varied administrative procedures prescribed by statute. In every one of those instances, the result has been the same: The party dissatisfied with the result it obtained in the administrative tribunal is not free to bring a collateral proceeding in a judicial forum to relitigate the unfavorable administrative result.

This has been ruled where the earlier contest took place before the Interstate Commerce Commission (*Louisville & N. R. R. Co. v. Ohio Valley Tie Co.*, 242 U. S. 288); or before the immigration authorities in a deportation matter (*Kessler v. Strecker,* 307 U. S. 22); or before a departmental board of contract appeals (*United States v. Bianchi & Co.,* 373 U. S. 709; *United States v. Utah Constr. Co.,* 384 U. S. 394); or before the Federal Maritime Commission (*Marine Terminal v. Rederi. Transatlantic,* 400 U. S. 62); or before the Federal Trade Commission (*United States v. Willard Tablet Co.,* 141 F.2d 141 (C. A. 7)): or before an adjustment board convened under the Railway Labor Act (*Bower v. Eastern Airlines,* 214 F.2d 623 (C. A. 3));

or before a National Labor Relations Board trial examiner (*Paramount Transport Sys. v. Chauffeurs, etc., Local 150,* 436 F.2d 1064 (C. A. 9)).

That principle is one of general application, not one to be denigrated by seeking, as the court below did here (Pet. App. A16), to minimize the scope of *res judicata* when applied to determinations made by administrative agencies.

In all such situations, the disappointed administrative suitor must pursue the appellate remedy prescribed by the statute under which he originally proceeded; he cannot retry his claim *de novo* in a separate judicial proceeding, least of all in today's condition of crowded court dockets everywhere. For, as this Court some time back pointed out, and not for the first time (*United States v. Morgan,* 313 U. S. 409, 422)—

> "It will bear repeating that although the administrative process has had a different development and pursues somewhat different ways from those of courts, they are to be deemed collaborative instrumentalities of justice and the appropriate independence of each should be respected by the other. *United States v. Morgan,* 307 U. S. 183, 191."

The Cappaerts content themselves with simply outlining the foregoing argument. There is no need for them to articulate it in further detail, as that will be comprehensively done, not only by the State of Nevada, intervenor in this case and petitioner in No. 74-1304, as well as by the several *amici* in both cases, but also, no doubt with varying emphases, by the petitioners in another case to be argued here this Term (*Colorado &c. District v. United States,* No. 74-940; *Akin v. United States,* No. 74-949), in which certiorari was

granted to review the Tenth Circuit's ruling in *United States v. Akin,* 504 F.2d 115.

If the contentions of the several petitioners in the cases just mentioned are sustained on this point, then, very obviously, since the United States admittedly never invoked the Nevada Act relating to underground waters, ch. 534, Nev. Rev. Stat. (Pet. App. D7-D8; Pet. App. No. 74-1304, xxvii; *infra,* page 97), in order to establish any rights to underground water in and around Devil's Hole, it was not free thereafter to assert such claims in an independent proceeding in a United States court.

B. Inasmuch as the United States in Protesting the Grant of Well Pumping Permits to the Cappaerts Invoked the 1952 Proclamation and Made Precisely the Same Contentions Before the State Engineer as It Has Made and Is Still Making in the Present Litigation, It Is Barred by the Doctrine of Res Judicata From Relitigating the Same Issues

As has been seen (*supra,* pp. 18-19), in protesting the grant of water pumping permits to the Cappaerts before the State Engineer, the representative of the United States made precisely the same contentions, of law and fact alike, that the United States has consistently advanced during the course of the present litigation.

He protested that to permit the Cappaerts to pump their wells would endanger the continued existence of the pupfish, and he relied on the 1952 Proclamation in support of his contention. Indeed, by saying (A. 287) that "The 'peculiar race of desert fish' was cited by the President as a primary reason for protecting Devil's Hole", he distorted the language of that document just

as the court below did and just as the Government is doing here—although it must be conceded that his misreading substantially exceeded either of theirs.

Thus the present independent action by the United States is simply a collateral relitigation of what had been decided against it by the State Engineer, a ruling that it did not deign to review judicially as it could have done under Nevada law (Nev. Rev. Stat., 534.030.3 and 533.450, *infra*, pp. 94-97), and in respect of which it could thereafter have sought further review here in respect of every federal question involved. *United States v. District Court for Eagle County*, 401 U. S. 520.

The State of Nevada, accordingly, contended below that "the doctrine of res judicata bars the Government from collaterally attacking the decision of a state administrative body—here the State Engineer" (Pet. App. A13).

The court below, however, rejected that contention, on several grounds: "The United States was not a party to those proceedings, nor was it ever served with process" (Pet. App. A14). "The [field] solicitor [for the National Park Service] did not raise the jurisdictional issue or any of the legal issues which the United States had the right to assert" (Pet. App. A14). "The State Engineer did not have the authority to adjudicate the water rights of the United States because the United States did not waive its sovereign immunity" (Pet. App. A14). "The proceeding before the State Engineer of Nevada was not a 'general adjudication' " (Pet. App. A15). "Although the State Engineer may have expertise in the administration of Nevada's water laws, there is no evidence that he is qualified to consider or decide

the complex issues of federal law involved in this case" (Pet. App. A16).

There are compelling answers to each step in the reasoning of the court below, some of which indeed verge on the captious.

1. The United States formally appeared for all purposes; its representative participated in the proceedings; and it litigated there the very same issues of law and fact that it is now still litigating in the present case.

2. The extent to which the Government's representative articulated his arguments is of course unimportant; what matters is that he invoked the 1952 Proclamation, and adduced evidence of the asserted damage that the Cappaerts' pumping would inflict on the pupfish.

3. It is of course quite immaterial that he was only a Field Solicitor of the Interior Department (not just of the Park Service, as the court below mistakenly said). What is important is that he represented the same National Park Service interest in endangered species that the Solicitor General of the United States represents in this Court. Surely there is no rule of law declaring that the United States is bound by the results of earlier litigation only when its highest-ranking law officers have filed a formal entry of appearance.

4. Nor is it even remotely pertinent that the State Engineer's qualifications were primarily hydrological rather than juristic; for if his decision was deemed wrong, there was a path available for redressing it, all the way to this Court (*supra*, p. 84).

Accordingly, the consequence of all the facts just recited, all of which plainly appear in the present record, is that the United States is now barred from further litigation of the Cappaerts' rights to the underground

water that they pump from their lands. That much follows from a decision that is substantially stronger. *United States v. Silliman,* 167 F.2d 607, certiorari denied, 335 U. S. 825.

The decision just cited, which arose out of the Hackfeld Alien Property fraud, requires explanation of its background, background that is complex and that can only be assembled from many widely scattered reports.

Briefly, Hackfeld was a German subject living in Germany whose property located in Hawaii was seized by the U. S. Alien Property Custodian in 1918. Because of his German nationality, Hackfeld was entitled to a return of only 80% of his seized property, and that only after the passage of the Settlement of War Claims Act of 1928, c. 167, 45 Stat. 254.

But, in 1924, Hackfeld and his attorney, one Silliman, succeeded in persuading Attorney General Harlan F. Stone and Secretary of State Charles E. Hughes that he had actually been an American citizen since the time of the Hawaiian Organic Act of April 30, 1900, c. 339, 31 Stat. 141; that during all of the intervening years he had believed himself to have been an American citizen; that his physical presence in Germany during the (first) World War, which made him an "enemy" within the Trading with the Enemy Act (see, e. g., *Juragua Iron Co. v. United States,* 212 U. S. 297), was a consequence of family illness; and that he had been unreservedly loyal to the United States during the war. Accordingly, he was issued an American passport, and the proceeds of his seized property were thereupon returned to him.

Thereafter, following Hackfeld's death, his ancillary executor in the United States—again represented by Silliman—was instrumental in obtaining a Congressional reference in the Court of Claims under §151 of the Judicial Code (old, i. e., pre-1948, 28 U. S. C. §257), to determine whether the true value of what had been seized in 1918 was more than the proceeds thereof that were returned in 1924.

The Government then investigated, after which it brought a cross-action against the ancillary executor in the Southern District of New York, inasmuch as no counterclaim could be filed in a Congressional reference.

In that action it was established that virtually every representation that Hackfeld and Silliman had made in 1924 was false, and also that, as a matter of Hawaiian law, Hackfeld had never acquired Hawaiian nationality so as to be collectively naturalized as an American by the Hawaiian Organic Act. The misrepresentations made on Hackfeld's behalf were moreover compounded by a cash payment that Hackfeld had himself made to the U. S. Consul whose favorable report was the determinative factor in the grant of Hackfeld's American passport. *Rodiek v. United States,* 100 Ct. Cl. 267, 275. Accordingly, the United States recovered judgment for the difference between what Hackfeld had received in 1924 as an American citizen and the largest sum to which he would ever have been entitled as a German, plus interest from the date of each payment. *United States v. Rodiek,* 117 F.2d 588 (C. A. 2), rehearing denied with opinion, 120 F.2d 760 (C. A. 2), affirmed by equally divided court, 315 U. S. 783.

Thereafter, when the ancillary executor and Silliman as his attorney sought payment of their fees from the Hackfeld estate in the Surrogate's Court in New York, a representative of the United States protested, contend-

ing that, in view of the representations made in 1924, which were ratified by the institution of the Congressional reference ten years later, all of which had been shown in that and the Second Circuit proceeding to have been false and tainted with corruption, no such fees should be paid out of the Hackfeld estate. Indeed, that estate was insufficient to satisfy the judgment obtained in the Second Circuit. But the Surrogate rejected the objection, and, holding that the money judgment obtained by the United States did not impress a trust on Hackfeld's American assets, allowed the fees. *Matter of Hackfeld,* 180 Misc. 406, 40 N. Y. S. 2d 60.

Following that setback, the United States then sought to obtain the deficiency still due it by suing Silliman as a joint tortfeasor with Hackfeld in having wrongfully claimed American citizenship for his client in 1924, a claim pursuant to which large sums were unlawfully obtained from the United States.

A district court judgment in favor of the United States was reversed by the Third Circuit, *United States v. Silliman,* 167 F.2d 607, certiorari denied, 335 U. S. 825, on the ground that the proceedings in the Surrogate's Court were *res judicata,* and that Silliman was thereby absolved from any further liability. Significantly, the opinion was written by Judge Herbert F. Goodrich, who, having been a member of the Advisory Committee for the American Law Institute's *Restatement of the Law of Judgments,* was peculiarly knowledgeable in matters of *res judicata.**

*Any reader of the above whose faith embraces a burning belief in ultimate retribution will be reassured to learn that the originator of Hackfeld's 1924 claim of American citizenship eventually received his come-uppance at the hands of the Commissioner of Internal Revenue. *Reuben D. Silliman,* 11 Tax Ct. Memo. Dec. 921, 12 *id.* 707, affirmed, 220 F.2d 282 (C. A. 2), certiorari denied, 350 U. S. 828.

There is no significant legal difference between the nature of the Government's intervention in the Surrogate's Court proceeding to protest the granting of attorney fees to Silliman, and that of the Government's intervention before the State Engineer of Nevada to protest the granting of well pumping permits to the Cappaerts.

If anything, the present case is a stronger one for a holding of *res judicata,* because there is a closer identity between the issues and contentions presented in the Nevada State Engineer's proceeding and those put forward in the present case, than there was between the New York Surrogate's allowance or disallowance of administrative expenses from the Hackfeld estate and the question of Silliman's liability as a joint tortfeasor with his former client.

What is primarily and principally significant in the Cappaerts' view is that, in both instances, the United States, which was not served and which could not have been made a party against its will, none the less appeared voluntarily and contested a basic issue.

The Cappaerts incline to the view that the issue of the *res judicata* effect of the State Engineer proceeding is "fairly comprised" within the jurisdictional question raised here by Nevada's petition in No. 74-1304 to review the same judgment below of which they complain. See Supreme Court Rules 23(1)(c) and 40(1)(d)(1). But they do not feel it necessary to labor that matter, inasmuch as this Court is of course entirely free to consider the *res judicata* aspect of the present case as an obvious instance of "plain error". Rule 40(1)(d)(2).

CONCLUSION.

For the foregoing reasons, the judgment below should be reversed, with directions to dismiss the complaint.

Respectfully submitted.

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AUGUST 1975.

APPENDIX A

STATUTES INVOLVED

[Note: Other pertinent statutes involved that are not set out in full in the foregoing text appear at Pet. App. D1-D8 and at Pet. App. No. 74-1304, xxv-xxvii.]

1. Section 9 of the Act of July 26, 1866, c. 262, 14 Stat. 251, 253, provided as follows:

> "Sec. 9. *And be it further enacted,* That whenever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes aforesaid is hereby acknowledged and confirmed: *Provided, however,* That whenever, after the passage of this act, any person or persons shall, in the construction of any ditch or canal, injure or damage the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage."

2. Section 17 of the Act of July 9, 1870, c. 255, 16 Stat. 217, 218, provided as follows:

> "Sec. 17. *And be it further enacted,* That none of the rights conferred by sections five, eight, and nine of the act to which this act is amendatory shall be abrogated by this act, and the same are hereby extended to all public lands affected by this act; and all patents granted, or preemption

or homesteads allowed, shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by the ninth section of the act of which this act is amendatory. But nothing in this act shall be construed to repeal, impair, or in any way affect the provisions of the 'Act granting to A. Sutro the right of way and other privileges to aid in the construction of a draining and exploring tunnel to the Comstock lode, in the State of Nevada,' approved July twenty-fifth, eighteen hundred and sixty-six."

3. The Desert Land Act of March 3, 1877, c. 107, 19 Stat. 377, provided as follows:

"CHAP. 107—An act to provide for the sale of desert lands in certain States and Territories—

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That it shall be lawful for any citizen of the United States, or any person of requisite age 'who may be entitled to become a citizen, and who has filed his declaration to become such' and upon payment of twenty five cents per acre—to file a declaration under oath with the register and the receiver of the land district in which any desert land is situated, that he intends to reclaim a tract of desert land not exceeding one section, by conducting water upon the same, within the period of three years thereafter, *Provided however* that the right to the use of water by the person so conducting the same, on or to any tract of desert land of six hundred and

forty acres shall depend upon bona fide prior appropriation: and such right shall not exceed the amount of water actually appropriated, and necessarily used for the purpose of irrigation and reclamation: and all surplus water over and above such actual appropriation and use, together with the water of all, lakes, rivers and other sources of water supply upon the public lands and not navigable, shall remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes subject to existing rights. Said declaration shall describe particularly said section of land if surveyed, and, if unsurveyed, shall describe the same as nearly as possible without a survey. At any time within the period of three years after filing said declaration, upon making satisfactory proof to the register and receiver of the reclamation of said tract of land in the manner aforesaid, and upon the payment to the receiver of the additional sum of one dollar per acre for a tract of land not exceeding six hundred and forty acres to any one person, a patent for the same shall be issued to him. *Provided,* that no person shall be permitted to enter more than one tract of land and not to exceed six hundred and forty acres which shall be in compact form.

"SECTION 2. That all lands exclusive of timber lands and mineral lands which will not, without irrigation, produce some agricultural crop, shall be deemed desert lands, within the meaning of this act, which fact shall be ascertained by proof of two or more credible witnesses under oath, whose affidavits shall be filed in the land office in which said tract of land may be situated

—

"SECTION 3. That this act shall only apply to and take effect in the States of California, Oregon and Nevada, and the Territories of Washington, Idaho, Montana, Utah, Wyoming, Arizona, New Mexico and Dakota, and the determination of what may be considered desert land shall be subject to the decision and regulation of the Commissioner of the General Land Office."

4. Section 8(b) of the Taylor Grazing Act of 1934, as amended, now 43 U. S. C. §315g(b), is as follows:

"§ 315g. Acceptance of donations of land; exchange of lands; notice of contemplated exchange; reservation of minerals, easements or rights of use; fee for exchange

* * * * *

"(b) When public interests will be benefited thereby the Secretary is authorized to accept on behalf of the United States title to any privately owned lands within or without the boundaries of a grazing district, and in exchange therefor to issue patent for not to exceed an equal value of surveyed grazing district land or of unreserved surveyed public land in the same State or within a distance of not more than fifty miles within the adjoining State nearest the base lands."

5. Nevada Revised Statutes, Sec. 533.450, is as follows:

533.450 Orders, decisions of state engineer subject to judicial review: Procedure; appeals; appearance of attorney general.

1. Any person feeling himself aggrieved by any order or decision of the state engineer, acting

in person or through his assistants or the water commissioner, affecting his interests, when such order or decision relates to the administration of determined rights or is made pursuant to NRS 533.270 to 533.445, inclusive, may have the same reviewed by a proceeding for that purpose, insofar as may be in the nature of an appeal, which shall be initiated in the proper court of the county in which the matters affected or a portion thereof are situated; but on stream systems where a decree of court has been entered, the action shall be initiated in the court that entered the decree. Such order or decision of the state engineer shall be and remain in full force and effect unless proceedings to review the same are commenced in the proper court within 30 days following the rendition of the order or decision in question and notice thereof is given to the state engineer as provided in subsection 3.

2. The proceedings in every case shall be heard and tried by the court, and shall be informal and summary, but full opportunity to be heard shall be had before judgment is pronounced.

3. No such proceedings shall be entertained unless notice thereof, containing a statement of the substance of the order or decision complained of, and of the manner in which the same injuriously affects the petitioner's interests, shall have been served upon the state engineer, personally or by registered or certified mail, at his office at the state capital within 30 days following the rendition of the order or decision in question. A similar notice shall also be served personally or by reg-

istered or certified mail upon the person or persons who may have been affected by such order or decision.

4. Where evidence has been filed with, or testimony taken before, the state engineer, a transcribed copy thereof, or of any specific part of the same, duly certified as a true and correct transcript in the manner provided by law, shall be received in evidence with the same effect as if the reporter were present and testified to the facts so certified. A copy of the transcript shall be furnished on demand, at actual cost, to any person affected by such order or decision, and to all other persons on payment of a reasonable amount therefor, to be fixed by the state engineer.

5. No bond shall be required except when a stay is desired, and the proceedings herein provided for shall not be a stay unless, within 5 days following the service of notice thereof, a bond shall be filed in an amount to be fixed by the court, with sureties satisfactory to such court, conditioned to perform the judgment rendered in such proceedings.

6. Costs shall be paid as in civil cases brought in the district court, except by the state engineer or the state.

7. The practice in civil cases shall apply and be consistent with the informal and summary character of such proceedings, as provided in this section.

8. Appeals may be taken to the supreme court from the judgment of the district court in the same manner and with the same effect as in other civil

cases, except that notice of appeal must be served and filed within 60 days from the entry of judgment.

9. The decision of the state engineer shall be prima facie correct, and the burden of proof shall be upon the party attacking the same.

10. Whenever it shall appear to the state engineer that any litigation, whether now pending or hereafter brought, may adversely affect the rights of the public in water, he shall request the attorney general to appear and protect the interests of the state.

6. Nevada Revised Statutes, Sec. 534.030.3, is as follows:

534.030 Supervision of ground water basins by state engineer; petition of well owners; review of orders; extent of supervision; advisory services of governing bodies of water districts, water conservation boards.

* * * * *

3. Such order of the state engineer may be reviewed by the district court of the county pursuant to NRS 533.450.

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Supreme Court, U.S.
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Nos. 74-1107 and 74-1304

In the Supreme Court of the United States

OCTOBER TERM, 1975

FRANCIS LEO CAPPAERT, ET AL., PETITIONERS

v.

UNITED STATES OF AMERICA

STATE OF NEVADA, EX REL. ROLAND D. WESTERGARD, STATE ENGINEER, PETITIONER

v.

UNITED STATES OF AMERICA

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF FOR THE UNITED STATES

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In the Supreme Court of the United States

OCTOBER TERM, 1975

No. 74–1107

FRANCIS LEO CAPPAERT, ET AL., PETITIONERS

v.

UNITED STATES OF AMERICA

No. 74–1304

STATE OF NEVADA, EX REL. ROLAND D. WESTERGARD, STATE ENGINEER, PETITIONER

v.

UNITED STATES OF AMERICA

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF FOR THE UNITED STATES

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. A, A–1 to A–17) [1] is reported at 508 F. 2d 313. The find-

[1] "Pet. App." refers to the separately bound appendix to the petition for a writ of certiorari in No. 74–1107; "App." refers to the joint appendix.

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ings of fact and conclusions of law of the district court (App. 359–368) are reported at 375 F. Supp. 456.

JURISDICTION

The judgment of the court of appeals (Pet. App. B, B–1) was entered on December 4, 1974. The court of appeals' order denying a timely petition for a rehearing (Pet. App. B, B–2) was entered on January 31, 1975. The petition for a writ of certiorari in No. 74–1107 was filed on March 6, 1975, and the petition for a writ of certiorari in No. 74–1304 was filed on April 19, 1975. Both petitions were granted on June 23, 1975. The jurisdiction of this Court rests upon 28 U.S.C. 1254(1).

QUESTIONS PRESENTED

1. Whether the United States, by virtue of a Presidential Proclamation declaring Devil's Hole, formerly part of the public domain, to be a national monument, thereby reserved such unappropriated underground waters as are required to preserve the pool of water in Devil's Hole and a species of fish whose sole habitat is that pool.

2. Whether a previous proceeding before the Nevada State Engineer in which federal officials protested the granting of pumping permits bars the United States from bringing this action.

STATUTE AND PROCLAMATION INVOLVED

The Act of June 8, 1906, 34 Stat. 225, 16 U.S.C. 431–433, is reproduced at Pet. App. D, D–1 to D–2. In pertinent part it provides:

> SEC. 2. That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land * * *.

The Presidential Proclamation of January 17, 1952, 66 Stat. C18, 17 Fed. Reg. 691, is reproduced at Pet. App. C, C–1 to C–3.

STATEMENT

A. DEVIL'S HOLE

1. The area of Nevada near Death Valley contains several springs and water holes that are remnants of prehistoric lakes. They have become islands of water in the desert in which small populations of fish have evolved, isolated from one another for thousands of years. These fish, like the birds and animals of the Galapagos Islands studied by Darwin, are important to the study of genetics, evolution, and the adaptation of animals (and man) to harsh environments. See App. 112–113, 154–158, 314–323; Pet. App. C, C–1 to C–2.

One of the major examples of such pools, and the sole habitat of one species of such fish (*Cyprinodon diabolis*, Devil's Hole pupfish), is Devil's Hole, located on public land near Death Valley. Devil's Hole is a desert pool formed in a collapsed limestone cavern. The surface of the pool lies approximately 50 feet below the surrounding land surface and is about 65 feet long by 10 feet wide. The pool is at least several

hundred feet deep, but its exact depth is unknown (Pet. App. A, A-2; Finding 8, App. 361–362). The pool contains a sloping natural shelf, which, under normal conditions, is covered with shallow water and receives sunlight for a few hours each day, permitting growth of algae upon which the fish feed (Findings 12, 14, App. 362–363) and providing a place for the fish to spawn (Finding 14, App. 363). The Devil's Hole pupfish are dependent for survival on this shelf remaining covered with water (Findings 12, 14, App. 362–363).

There are some 24 species of pupfish in the world. The entire population of the species *Cyprinodon diabolis* inhabit Devil's Hole. This species is like other pupfish in that it survives under low oxygen levels, high water temperatures (here 92 degrees Fahrenheit), and high salinity (App. 127, 155). It is unique, even among pupfish, however, because it is the dwarf of the genus, measuring less than an inch in length at maturity. Its life cycle is also uniquely adapted to the difficult circumstance of survival in Devil's Hole. It spawns in shallow water but migrates some 25 to 40 feet in depth daily as the intensity of the sun changes (App. 114–115). Its markings and the lack of territoriality among males, also distinguish it from other pupfish (*ibid.*) The total population of Devil's Hole pupfish at the time of the trial was about 400 (App. 120). Attempts to transplant the fish to other springs or to raise them in captivity have failed (App. 121).[2]

[2] The Cappaerts assert (Br. 9) that there was evidence to show that "the Devil's Hole pupfish have apparently been successfully transplanted to the Hoover Dam refugium." The references cited, however, do not support the contention. For example, Dr. Osborn's testimony (Tr. June 1st and 2nd, 1973, p. 52), relied upon by the Cappaerts, was that "I can't qualify the Hoover Dam Refugium as a successful transplant." And the court specifically found on April 9, 1974, on the basis of substantial evidence (see App. 121), that transplantation "has not to date proven to be a successful alternative" (Finding 27, App. 365).

[3] See also Brown, *The Desert Pupfish*, Scientific American, Nov. 1971, pp. 104–110.

Cyprinodon diabolis was listed by the Secretary of the Interior as an endangered species on March 10, 1967 (32 Fed. Reg. 4001).[3]

2. Recognizing the importance of Devil's Hole, President Truman by Proclamation of January 17, 1952 (Proclamation No. 2961, 66 Stat. C18, 17 Fed. Reg. 691, Pet. App. C, C–1 to C–3), under the authority vested in the President by the Act of June 8, 1906, 34 Stat. 225, 16 U.S.C. 431 (see p. 3, *supra*), withdrew from the public domain the forty-acre tract containing Devil's Hole and made it a detached unit of the Death Valley National Monument. In establishing the addition to the monument the proclamation referred to the land added as "a forty-acre tract of public land in Nevada containing a remarkable underground pool known as Devil's Hole" (Pet. App. C, C–1) and referred to the pool as a "unique subsurface remnant of the prehistoric chain of lakes" in the area as "confirmed by the presence in this pool of a peculiar race of desert fish, * * * found nowhere else in the world [which] evolved only after the gradual drying up of the Death Valley Lake System * * *" (*id.* at C–1 to C–2). The Proclamation

continued by stating that the reservation is made because (*id.* at C–2):

> * * * the said pool is of such outstanding scientific importance that it should be given special protection, and such protection can be best afforded by making the said forty-acre tract containing the pool a part of [Death Valley National Monument].

The addition to the monument was made subject to the provisions of the Act of June 13, 1933, 48 Stat. 139, 16 U.S.C. 447, which allows a limited application of federal mining laws within Death Valley National Monument, and subject "to all valid existing rights" (Pet. App. C, C–2). The proclamation provided for the supervision of the monument to be turned over to the National Park Service as provided in its organic act (Act of August 25, 1916, 39 Stat. 535, 16 U.S.C. 1–3) and acts supplementary there to (Pet. App. C, C–2 to C–3).

B. THE CAPPAERTS' PUMPING

1. The Cappaerts[4] began purchasing land in the Ash Meadows region near Death Valley and Devil's Hole in the 1960's.[5] On October 14, 1969, they obtained

[4] By "the Cappaerts" we refer collectively to petitioners in No. 74–1107, and their predecessor corporation, Spring Meadows, Inc. The petitioners in No. 74–1107 are Francis and Marilyn Cappaert, of Vicksburg, Mississippi, sole remaining stockholders of Spring Meadows, Inc., a Nevada corporation organized in 1966 and dissolved in 1970 (Finding 2, App. 360–361), and B. L. Barnett, their ranch manager (see Finding 5, App. 361).

[5] The exact dates are not in the record but Spring Meadows Inc., was not organized until 1966.

from the United States an additional 5,645.33 acres in the Ash Meadows region by means of a land exchange pursuant to Section 8 of the Taylor Grazing Act (48 Stat. 1272, as amended, 43 U.S.C. 315g(b)) (App. 16–17). No representations concerning water rights were made to the Cappaerts by federal officials involved in the exchange (Pet. App. A, A–10 to A–11) and lands within one mile of Devil's Hole were deleted from the exchange at the request of the National Park Service (App. 179–180).

2. From 1962, when periodic monitoring began, until 1968, when the Cappaerts' pumping began, the pool in Devil's Hole was stable (except for seasonal variations) at a level approximately 1.2 feet below a copper washer used as a reference point (Findings 11, 13, 15, App. 362–363). This was within the normal range for the hole and posed no threat to the survival of its aquatic life. By 1969, however, the water level had dropped to 2.3 feet below the marker, and by 1972 it had dropped to 3.93 feet below (Findings 17–20, App. 363), a level threatening extinction of the Devil's Hole pupfish (Findings 24–25, App. 365).

The wells involved in this litigation are designated numbers 1 through 6 and 16 and 17[6] (Finding 16, App. 363). The Cappaerts drilled and began pumping from wells 1 through 6 in 1968 (App. 15–16, 224) and drilled wells 16 and 17 in the early part of 1972 (App. 15–16, 225).

[6] Wells 16 and 17 are referred to in the complaint as wells 1–A and 1–B (App. 10–14).

C. THE PROTEST BEFORE THE STATE ENGINEER

In April 1970, the Cappaerts applied to the Nevada State Engineer for permits to change the uses and increase their pumping from wells 1 through 6 (see App. 223–224, 283–285). The United States was not a party to these proceedings and was not served with process (Pet. App. A, A–14). In accordance with Nevada law, however, notices of the applications were published so that any interested person might protest the new water use (see Pet. App. A, A–14 n. 9). One private firm protested (App. 282). An official of the National Park Service (Gerard S. Witucki) also filed protests, signing his own name as protestant, but in the body of the protest stating that he did so on behalf of "the National Park Service Western Service Center, Water Resources Section" (App. 269–270; see also App. 271–278).

As a result of the written protests, the State Engineer held a hearing on December 16, 1970. At that hearing (App. 281–313) a field solicitor of the Department of Interior was present, stated that he represented the National Park Service of the Department of Interior, and pointed to the possible detrimental effect on Devil's Hole of the new pumping (App. 286–298). The field solicitor informed the Engineer that the United States was aware of the declining water level of Devil's Hole and had commissioned a hydrological study to try to determine which wells on the Cappaerts' land were hydrologically connected to Devil's Hole and, thus, which could be pumped safely

and which should be limited, and to what degree (App. 291–294).

The field solicitor requested that the Cappaerts' application be denied outright or that the State Engineer postpone his decision on the matter until the pending studies were completed (App. 286–294). While the field solicitor referred to the Presidential Proclamation establishing Devil's Hole as a national monument and stated that the federal government's primary concern was that pumping from the Cappaerts' wells could cause the pool in Devil's Hole to recede and thus endanger the pupfish (App. 286–294), he did not assert that the United States had a reserved water right in respect to Devil's Hole nor did he seek an adjudication of the United States' water rights by the State Engineer.

At the conclusion of the hearing on December 16, 1970 the State Engineer declined to postpone action on the Cappaerts' applications (App. 309–310). He stated that there was no recorded federal water right in respect to Devil's Hole (App. 310), that the testimony indicated that the Cappaerts' pumping would not cause unreasonable lowering of the water table (App. 311), and that the granting of the permit applications, because it would further economic development, would be in the public interest (App. 311–312). He then orally issued his ruling "* * * that the protest to the applications that are the subject of this hearing are overruled and the applications will be issued *subject to existing rights*" (App. 312; emphasis added). The National Park Service did not seek to appeal his action.

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D. THE PROCEEDINGS BELOW

In August 1971 the United States, invoking 28 U.S.C. 1345,[7] brought this civil action in the United States District Court for the District of Nevada naming Spring Meadows, Inc., B. L. Barnett and others as defendants (R. 1).[8] The complaint alleged that the United States, through the establishment of Devil's Hole as a part of Death Valley National Monument on January 22, 1952, reserved the unappropriated waters appurtenant to the land to the extent necessary for the requirements and purposes of the reservation, and that those rights have a priority date of January 22, 1952 (R. 2–3; see also App. 11–12). The complaint further alleged that the defendants had engaged in heavy pumping from wells specifically designated in the complaint and that this pumping had caused the water level in Devil's Hole to drop to a level threatening the extinction of the Devil's Hole pupfish (R. 3–4; see also App. 12–13). The complaint finally alleged that petitioners had no perfected water right (R. 3; see also App. 12–13) and that irreparable harm would follow unless their pumping from the designated wells were enjoined. The complaint asked the court to determine and decree the water rights of the United States and enjoin defendants from diversions of water detrimental to the rights of the United States (R. 4–5; see also App. 13–14).

[7] Section 1345 provides that "the district courts shall have original jurisdiction of all civil actions, suits or proceedings, commenced by the United States * * *."

[8] "R." refers to the record in the court of appeals.

On June 2, 1972, the United States filed an amended complaint (App. 10–14) specifically naming the petitioners in No. 74–1107 as defendants and adding other specified wells and future diversions from particular areas of land to those to be enjoined to the extent that they conflicted with the prior federal rights.[9]

The Cappaerts' answer (App. 15–17) admitted that their wells draw water from the same aquifers as Devil's Hole, but denied that the reservation of Devil's Hole reserved any waters. The Cappaerts also alleged that their exchange of land with the United States estopped the United States from enjoining their use of water.

The State of Nevada intervened as a party defendant (App. 21) and filed an answer asserting no affirmative defenses but praying that the injunction be denied (App. 18–20). The case was heard on the motion for a preliminary injunction (App. 21–268) and the district court, on June 5, 1973, entered detailed findings of fact and conclusions of law (R. 664–674), later adopted without change[10] as the findings and conclusions of the court in rendering its permanent injunction (App. 359–368).

In addition to the general findings with respect to Devil's Hole and the Cappaerts' pumping that have been recited at pp. 3–7, *supra,* the court found that the Cappaert's pumping from particular wells, which are

[9] The complaint, however, did not seek to enjoin any domestic use of water.

[10] Except in transitional phrases making them applicable to a permanent injunction.

hydraulically connected to Devil's Hole, caused the water level in Devil's Hole to drop (Findings 16–21, App. 363); that "pumpage from the aquifer system in the Ash Meadows area can be regulated so as to produce stabilization of the water level in Devil's Hole at any desired position below its mean natural level of 1.2 feet below the copper washer" (Finding 23(d), App. 364); that neither establishing an artifical shelf nor transplanting the pupfish has proved a successful alternative to preserving the pool at a proper level (Findings 26 and 27, App. 365); that if an injunction is not issued "there is grave danger that the Devil's Hole pupfish may be destroyed, resulting in irreparable injury to the United States" (Finding 30, App. 366); and that all wells identified as affecting Devil's Hole lie within two and one-half miles of Devil's Hole (Finding 31, App. 366).

The district court's conclusions of law were essentially that in establishing Devil's Hole as a national monument the President reserved appurtenant unappropriated waters necessary to the purpose of the reservation, that this purpose included preservation of the pool and the pupfish that live in it, that the federal water rights are superior in time and right to those of the Cappaerts, that no case of estoppel has been made out against the United States, and that the public interest lies in granting the injunction (Conclusions of Law 2–11, App. 366–368).

The court then, on June 5, 1973, entered a preliminary injunction limiting pumping from designated wells so as to return the level of Devil's Hole to not

more than 3.0 feet below the marker. The court also appointed a special master to establish specific pumping limits for the designated wells and to monitor the level of Devil's Hole (R. 675–677).

On petitioners' appeal from the preliminary injunction, the court of appeals at oral argument suggested the desirability of a final judgment in order to expedite the final resolution of the case and, with the consent of counsel, remanded the case for entry of a final order (App. 358–359).

On April 9, 1974, the district court entered its findings of fact, conclusions of law, and final decree permantly enjoining the Cappaerts from pumping ground water in such a manner as to cause the waters in Devil's Hole to recede below the 3.0 foot level and designating the master to monitor compliance (App. 359–369).

On December 4, 1974, the court of appeals unanimously affirmed the decision of the district court (Pet. App. A, A–1 to A–17).[11] After stating the facts as found by the district court (*id.* at A–1 to A–4), the court of appeals reviewed the decisions of this Court establishing the reserved rights doctrine, and the decisions of lower courts considering the doctrine in the con-

[11] The court also remanded the case to the district court to determine whether the facts developed during the pendency of the appeal show that a water level of 3.3 feet below the marker is adequate to preserve the pupfish (*id.* at A–16 to A–17), and directed the court to retain continuing jurisdiction so that it can act promptly "if a change in water level is required to preserve * * * the pupfish" (*id.* at A–17). The pupfish have to this time been preserved and the United States is now having studies made to determine if the 3.3 level is satisfactory on a long-term basis.

text of ground water, and concluded that where it is necessary for the purpose of the reservation the United States "may reserve not only surface water, but also underground water" (*id.* at A–6). The court found that "[t]he fundamental purpose of the reservation of the Devil's Hole pool was to assure that the pool would not suffer changes from its condition at the time the Proclamation was issued in 1952; that condition included the pool's unique inhabitants, the pupfish" (*id.* at A–7). The court further held that under Nevada law the Cappaerts had obtained no water rights except by actual use of the water and that "neither the Cappaerts nor their predecessors made actual beneficial use of water until 1968" (*id.* at A–10), well after the establishment of Devil's Hole as a national monument. The court rejected, both factually and on legal grounds, the Cappaerts' argument that the government was estopped from asserting its right because of its exchange of land with the Cappaerts (*id.* at A–11).

Referring to this Court's decision in *Federal Power Commission* v. *Oregon* (*Pelton Dam*), 349 U.S. 435, 444, 448, the court also rejected Nevada's contention, based on the Desert Land Act, that the Devil's Hole water right was invalid because the government had not complied with state law (Pet. App. A, A–11 to A–12). Finally, the court rejected Nevada's contention that the unsuccessful protest before the State Engineer barred this proceeding under the doctrine of *res judicata*. The court explained that the United States had not waived sovereign immunity by the

protest, and that the hearing before the Engineer, not being a general adjudication, and providing for no service on the United States, was not one in which the McCarran Amendment, 66 Stat. 560, 43 U.S.C 666, constituted a congressional waiver of immunity. The court further reasoned that even if the United States had waived sovereign immunity it would be improper to give *res judicata* effect with respect to federal rights to the decision of the state water engineer in a proceeding of this kind (*id.* at A–16).[12]

SUMMARY OF ARGUMENT

I

The decisions of this Court establish that the United States, by reserving public lands, may thereby reserve unappropriated waters appertaining to the land and necessary to fulfill the purpose of the reservation. The power to make such reservations of water rests on the Property Clause, Art. IV, Sec. 3, of the Constitution, and, for navigable waters, additionally on the Commerce Clause, Art. I, Sec. 8. The reserved right is applicable to any federal reservation of land, not just Indian reservations. The right is limited, however, in that it applies only to waters that were unappropriated at the time the reservation was set aside, and is further limited in that it reserves waters only to the extent needed to satisfy the purpose of the reservation.

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[12] The court of appeals, on January 31, 1975, denied a timely petition for rehearing (Pet. App. B, B–2).

The federal reserved right is independent of state laws and procedures. The water law of most Western States is based on the doctrine of prior appropriation. The basic principle of that system is that a water right is obtained by diverting the water from its natural source and putting it to beneficial use. That system, which encourages maximum present exploitation of the water, is peculiarly inappropriate for the protection of National Parks, Forests, and Monuments, where no diversion or beneficial use recognized by the State may be desired, or for Indian reservations or military establishments, where present maximum use may not be desirable or practical. Thus the federal system to protect federal uses fulfills a necessary function and Congress has consistently declined to adopt legislation that would subject such rights to state law.

Petitioners argue that the Desert Land Act granted control over all non-navigable waters (and thus over underground water as well) to the States. The Act provided that patents on the public domain carry with them no water rights and allow States to regulate the water rights of patentees. But the Act does not affect the water rights of the United States appurtenant to lands that it has reserved for federal uses. This Court specifically so held in *Federal Power Commission* v. *Oregon,* 349 U.S. 435. The Cappaerts urge the Court to overrule that case, but the assumption on which they base their argument—that various acts and precedents were there overlooked by the Court majority—is not correct.

II

The reserved right doctrine properly applies to underground water as well as to surface water. The doctrine is based on the need for water to fulfill the purpose of the reservation and not the character of the water. There is no reason, for instance, why the wells on which an Indian or military reservation depends should not be as fully protected as surface diversions.

Moreover, it is increasingly recognized today that ground water and surface water are interlocking resources, part of the same hydrologic cycle, and should be treated similarly by the law. The leading authorities on water law recognize this, and the National Water Commission has recommended the integration of ground water and surface water rights. Moreover, Nevada, by statute, allows appropriative rights in either ground water or surface water.

The decisions below, recognizing the United States' prior water right and enjoining the Cappaerts from interfering with it, are in accord with the only other decisions considering the reserved water rights of the United States to underground water.

III

Contrary to petitioners' arguments, President Truman acted within the authority granted him by the American Antiquities Act, Act of June 8, 1906, 34 Stat. 225, 16 U.S.C. 431 *et seq.,* in reserving Devil's Hole as a National Monument. The terms of the Act grant the President authority to reserve not only

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historic and prehistoric structures, but also "other objects of historic or scientific interest" situated upon public land, which Devil's Hole clearly is. This Court, in upholding the establishment of the Grand Canyon National Monument, *Cameron* v. *United States,* 252 U.S. 450, 455–456, held that the Antiquities Act is applicable to the preservation of objects of scientific interest as well as man-made antiquities.

As the courts below held, in establishing Devil's Hole as a National Monument a principal purpose was to preserve the pool in its natural state including protection of the Devil's Hole pupfish. This purpose supports the reservation of unappropriated waters appurtenant to the land to the extent necessary to preserve the pool and fish.

IV

Contrary to petitioners' contentions, the State Engineer's granting of pumping permits for some, but not all, of the wells at issue here over the protest of the National Park Service does not bar this action. The Cappaerts have not properly raised the issue of *res judicata,* which is an affirmative defense, and Nevada, which was not a party in the proceeding before the State Engineer, may not do so. But in any event the State Engineer did not purport to adjudicate the water rights of the United States and he was, moreover, precluded from doing so by Nevada law, which required his determination to be subject to existing rights.

After the permit proceeding, when the effect of the increased pumping permitted by the State Engineer

was known, rather than merely predicted, the United States properly brought this action in federal court to determine its water right created by federal law and to enjoin the Cappaerts' pumping to the extent necessary to protect the national monument.

ARGUMENT

I

THE UNITED STATES, BY WITHDRAWING LANDS FROM THE PUBLIC DOMAIN AND RESERVING THEM FOR A FEDERAL USE, MAY RESERVE UNAPPROPRIATED WATERS, WHETHER NAVIGABLE OR NON-NAVIGABLE, APPURTENANT TO THE LAND TO THE EXTENT NECESSARY TO FULFILL THE PURPOSE OF THE RESERVATION OF THE LAND

A. THE FEDERAL RESERVED RIGHT AND THE PRINCIPLES SUPPORTING IT ARE FIRMLY ESTABLISHED BY DECISIONS OF THIS COURT

The decisions of this Court establish that the United States may, by reservation of public lands, also reserve such appurtenant unappropriated waters as are required to accomplish the purposes for which the federal reservation was created. *Arizona* v. *California,* 373 U.S. 546, 597–602; *United States* v. *Powers,* 305 U.S. 527, 528; *Winters* v. *United States,* 207 U.S. 564, 575–578; see also *United States* v. *Rio Grande Dam and Irrigation Co.,* 174 U.S. 690, 703, 706; *United States* v. *Ahtanum Irrigation Dist.,* 236 F. 2d 321, 323–328 (C.A. 9), certiorari denied, 352 U.S. 988; *United States* v. *Walker River Irr. Dist.,* 104 F. 2d 334 (C.A. 9); *United States* v. *McIntire,* 101 F. 2d 650 (C.A. 9). The basis of the doctrine is

that the reservation of public lands for a public purpose implies the reservation of unappropriated, and thus available, water appurtenant to the land to the extent necessary to fulfill that purpose. As the Court has noted, in arid areas the reservation of land will often be of little use without the water rights appurtenant to the land. *Winters* v. *United States, supra,* 207 U.S. at 576; *Arizona* v. *California, supra,* 373 U.S. at 599–601.

The power to make such a reservation rests on the Property Clause, Art. IV, Sec. 3, of the Constitution and, as to navigable waters, also on the Commerce Clause, Art. 1, Sec. 8. And there can be "no doubt about the power of the United States under these clauses to reserve water rights for its reservations and its property." *Arizona* v. *California, supra,* 373 U.S. at 598.

Because the right is a federal right derived from the federal reservation of the land, it is not dependent upon state law. The test to be applied to determine the existence of such a federal reserved water right is not compliance with state law but whether the previously unappropriated waters were necessary to accomplish the purposes for which the reservation was created. *Winters* v. *United States, supra,* 207 U.S. at 576; *Federal Power Commission* v. *Oregon* (*Pelton Dam*), *supra,* 349 U.S. at 444–448; *Arizona* v. *California, supra,* 373 U.S. at 599–601. (See also discussion at pp. 23–25 *infra.*)

While *Winters* v. *United States, supra,* and *United States* v. *Powers, supra,* involved Indian Reservations, the doctrine applies equally to any reservation of pub-

lic land,[13] and in *Arizona* v. *California, supra,* this Court specifically so held, stating (373 U.S. at 601):

> The Master ruled that the principle underlying the reservation of water rights for Indian Reservations was equally applicable to other federal establishments such as National Recreation Areas and National Forests. We agree with the conclusions of the Master that the United States intended to reserve water sufficient for the future requirements of the Lake Mead National Recreation Area, the Havasu Lake National Wildlife Refuge, the Imperial National Wildlife Refuge and the Gila National Forest.[14]

Since the doctrine is based on the need for the otherwise unappropriated water to make the reservation of public land useful and since the waters reserved are those appurtenant to the public land reserved, the reservation is not dependent upon the navigability of the water. In both *Winters* v. *United*

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[13] This is not to say that Indian water rights and federal water rights are one and the same. Indian water rights belong to the Indians rather than to the United States, which holds them only as trustee. For this reason, among others, the United States has taken the position that Indian reserved water rights are not covered by the McCarran Amendment, 66 Stat. 560, 43 U.S.C. 666. See our brief in Nos. 74–940 and 74–949. *Colorado River Water Conservation District, et al.* v. *United States* and *Mary Akin et al.* v. *United States*, which we are making available to the petitioners herein. But reserved rights are created by the reservation of any public land, not just reservations of land by or for Indians.

[14] This was in accord with the Court's prior holding in *Federal Power Commission* v. *Oregon* (*Pelton Dam*), *supra*, 349 U.S. at 438, 448 that a reservation of land for a power site reserved appurtenant water rights.

States, supra, 207 U.S. at 566, 577, and *United States* v. *Powers, supra,* 305 U.S. at 528, the source of the waters reserved was a non-navigable stream. See also *Federal Power Commission* v. *Oregon, supra,* 349 U.S. at 438, n. 4, and the discussion at pp. 25–30, *infra.*

However, because the right applies only to waters that are unappropriated at the time the public land is reserved, the United States' right is subordinate to rights perfected before the establishment of the reservation. In turn, rights perfected after the establishment of the reservation are subordinate to the reserved right of the United States. *Arizona* v. *California, supra,* 373 U.S. at 600; see also Morreale, *Federal-State Rights and Relations,* in 2 Clark, *Waters and Water Rights* 81–82 (1967). Moreover, although the reserved right includes future water needs to fulfill the purpose of the reservation, it is also limited by those needs, and the extent of the right can be quantified accordingly. *Arizona* v. *California, supra,* 373 U.S. at 600–601.[15]

In sum, as the Court stated in *United States* v. *District Court for Eagle County,* 401 U.S. 520, 522–523:

> It is clear from our cases that the United States often has reserved water rights based on withdrawals from the public domain. As we said in *Arizona* v. *California,* 373 U.S. 546, the Federal Government had the authority both before and after a State is admitted into the Union "to reserve waters for the use and benefit of federally reserved lands." *Id.,* at 597. The federally reserved lands include any federal enclave. In *Arizona* v. *California* we were primarily concerned with Indian reservations. *Id.,* at 598–601. The reservation of waters may be only implied and the amount will reflect the nature of the federal enclave. *Id.,* at 600–601.

[15] While the right reserves use of up to a certain amount of water, if that amount is not actually used and is replenishable others are free to use it, but on the condition that they will curtail their use if the water is needed for the reservation. See Morreale, *supra,* in 2 Clark, *Waters and Water Rights* 81–82 (1967); see also *Tweedy* v. *Texas Co.,* 286 F. Supp. 383, 386 (D. Mont.).

B. THE RESERVED RIGHT IS NOT DEPENDENT UPON STATE LAWS OR PROCEDURES

Most western states, including Nevada, have water laws based on some version of the doctrine of prior appropriation. The basic principle of such laws is that a person acquires a right to the use of water by diverting it from its source and putting it to a beneficial use. The right to use the water is lost if it is not used and others are then free to appropriate and gain a superior legal right to the use of the water.[16] Nevada uses the prior appropriation system for both surface and underground water. See Pet. App. A, A–8 to A–10. See also Nev. Rev. Stat. 533.010–533.060, 534.020, 534.080, 534.090.

This system obviously encourages maximum present exploitation of the water because a person who does not divert and use water (or transfer his right to an-

[16] See Sax, *Water Law, Planning and Policy—Cases and Materials,* 218–224 (1968); see also Trelease, *Federal-State Relations in Water Law,* National Water Commission Legal Study No. 5 21–38 (1971); 5 Clark, *Waters and Water Rights* 1–37 (1972).

other to do so) loses his right to the water. On the other hand, the system provides little protection for the preservation of waters without diversion or the reservation of water rights for future use. The prior appropriation system in its strict form is thus inappropriate for the protection of National Parks, Forests, and Monuments, where the desirable use of the water may be to preserve it without diversion, or for Indian Reservations or military establishments, where for diverse reasons present maximum exploitation is neither feasible nor desirable.

As stated in the Report to the President and to the Congress by the Public Land Law Review Commission, One Third of the Nation's Land 146 (1970):[17]

> Although state law appears to be generally adequate as a basis for water rights for uses on reserved public lands, the reservation doctrine should not be abrogated. To do so and to require the public land agencies to rely solely on state law for the acquisition of water rights for reserved land uses presents several problems:
>
> (1) In some states important Federal uses, such as for recreation or fish and wildlife purposes, are either not recognized

[17] Western states have increasingly recognized the need to protect some streams in their natural states, contrary to the principles of appropriative rights, which protects only diversions, and to provide some means of reserving water rights for their burgeoning cities. See Sax, *supra*, at 220–221, 185–187; Comment, *Water Appropriation for Recreation*, 1 Land and Water Law Review 209–222 (1966). See also 5 Clark, *Waters and Water Rights* 66–73, 95–98 (1972); Dewsnup, *Legal Protection of Instream Water Values*, National Water Commission Legal Study No. 8–A (1971).

> as beneficial uses or have low preferences vis-a-vis other competing uses.
>
> (2) The implied reservation doctrine provides the necessary water rights for certain Federal uses and future needs for which state law has not been complied with for one reason or another. To discard the reservation doctrine might well place the validity of those rights in question and inject further uncertainty into this area.

Thus, the federal system to protect federal uses fulfills a necessary function. And, since this Court's 1955 decision in *Federal Power Commission* v. *Oregon,* 349 U.S. 435 (see pp. 27–28, *infra*), numerous bills have been introduced in Congress to subject federal water uses to state appropriation doctrines,[18] none of these has been enacted.

C. THE FEDERAL LAND ACT DOES NOT BAR THE APPLICATION OF THE FEDERAL RESERVED RIGHTS DOCTRINE TO NON-NAVIGABLE WATERS

Both petitioners argue (Cappaerts Br. 29–51; Nevada Br. 8–20), that at least as to non-navigable water (which would include Devil's Hole), state law, rather than federal law, should determine the federal water right. The argument is based on an interpretation of the Desert Land Act of 1877, 19 Stat.

[18] For a discussion of some of these bills see Morreale, *Federal-State Conflicts Over Western Waters—A Decade of Attempted "Clarifying Legislation,"* 20 Rutgers L. Rev. 423 (1966); see also 5 Clark, *Waters and Water Rights* 383 (1972). The most recent of these bills appears to be S. 28, 92d Cong., 1st Sess., introduced by Senator Moss and others on January 25, 1971, and reintroduced under the same number, 93d Cong., 1st Sess. (January 4, 1973). No action has been taken on the bill.

377, 43 U.S.C. 321, and its statutory predecessors,[19] which petitioners contend severed all non-navigable waters from public land, whether reserved or not, and thereby subjected such waters to state appropriation law. The argument has been made in the past and has been consistently rejected.[20]

The Desert Land Act by its terms applies to persons who homestead desert areas of the public domain. It provides (43 U.S.C. 321) that a patent to such land does not convey water rights, but that water rights "shall depend upon bona fide prior appropriation * * *." It also provides that unappropriated waters "shall remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes subject to existing rights." The Act merely adopted local law and customs as the basis for acquisition by the public of rights to the use of unappropriated waters on the public lands. See *Broder* v. *Water Co.*, 101 U.S. 274, 275; *California Oregon Power Co.* v. *Beaver Portland Cement Co.*, 295 U.S. 142, 154–155. Nothing in the Act purported to limit the water rights of the United States appurtenant to lands it did not open for homesteading—that

[19] Act of July 26, 1866, 14 Stat. 251, and Act of July 9, 1870, 16 Stat. 217, the relevant provisions of which are reproduced in the Cappaerts' brief at pages 91–92.

[20] See Morreale, *Federal-State Rights and Relations* in 2 Clark, *Waters and Water Rights* 58–63 (1967); Goldberg, *Interposition—Wild West Water Style*, 17 Stanford L. Rev. 1–38 (1964); see also Clark, *Arizona Ground Water Law: The Need for Legislation*, 16 Ariz. L. Rev. 799, 804 1974).

is, to lands removed from the public domain and reserved for other purposes.[21]

Any doubt about whether the Desert Land Act had deprived the federal government of its authority to

[21] *California Oregon Power Co.*, *supra*, relied upon by petitioners, is not to the contrary. There, in a case between private parties in which the United States did not participate, one landowner claimed that by virtue of its 1885 patent to riparian property it had acquired common law riparian rights to the waters of a non-navigable stream superior to rights claimed by the other party through subsequent appropriation. In rejecting this claim, the Court stated that by enactment of the Desert Land Act and its predecessors, Congress effected a severance from the land of all non-navigable waters on the public domain and, as a consequence, the patent carried with it no common law riparian rights. Hence, persons asserting water rights in the desert-land States were required to perfect those rights pursuant to applicable state law. By its interpretation of the Act the Court did not, however, purport to limit the power of the federal government to reserve unappropriated water for its own use in the desert-land States.

Four years after the *California Oregon Power Co.* decision, the court of appeals for the Ninth Circuit, in upholding a reserved right to non-navigable waters claimed by the United States for an Indian reservation, expressly rejected the argument that the Desert Land Act obligated the federal government to perfect its right to non-navigable waters in accordance with local law. *United States* v. *Walker River Irr. Dist.*, 104 F. 2d 334. The court stated (*id.* at 336–337):

"It is of course well settled that private rights in the waters of non-navigable streams on the public domain are measured by local customs, laws and judicial decisions. * * * But it does not follow that the Government may not, independently of the formalities of an actual appropriation, reserve the waters of non-navigable streams on the public domain if needed for governmental purposes."

See also *United States* v. *Ahtanum Irrigation Dist.*, *supra*, 236 F. 2d at 328; *State of Nevada* v. *United States*, 165 F. Supp. 600 (D. Nev.), affirmed on other grounds, 279 F. 2d 699 (C.A. 9).

reserve unappropriated non-navigable waters without regard to state water laws, was dispelled by this Court in *Federal Power Commission* v. *Oregon* (*Pelton Dam*), 349 U.S. 435. In that case, Oregon, relied on the Desert Land Act in asserting that the Federal Power Commission lacked authority to license a dam on a non-navigable river in contravention of state law. The dam was at a location reserved by the United States for water power purposes. The Court rejected Oregon's argument, stating (349 U.S. at 448):

> It is not necessary for us, in the instant case, to pass upon the question whether this legislation constitutes the express delegation or conveyance of power that is claimed by the State, because these Acts are not applicable to the reserved lands and waters here involved. The Desert Land Act covers "sources of water supply upon the public lands . . . ." The lands before us in this case are not "public lands" but "reservations." * * * "It is a familiar principle of public land law that statutes providing generally for disposal of the public domain are inapplicable to lands which are not unqualifiedly subject to sale and disposition because they have been appropriated to some other purpose." *United States* v. *O'Donnell*, 303 U.S. 501, 510. See also, *United States* v. *Minnesota*, 270 U.S. 181, 206.

Recognizing that *Pelton Dam* is directly contrary to their argument, the Cappaerts contend (Br. 37–45) that the decision should be overruled.[22] They assert,

[22] Nevada does not join in this argument.

that in deciding *Pelton Dam* the Court acted under a mistake of fact in that it did not refer to President Roosevelt's withdrawal of most public land from availability for homesteading under the Taylor Grazing Act, 48 Stat. 1269, 43 U.S.C. 315, and that the Court overlooked portions of its earlier rulings. But the Court in *Pelton Dam* was engaged in statutory interpretation and the Taylor Grazing Act, enacted in 1934, did not alter what Congress meant in the Desert Land Act of 1877.[23] Moreover, petitioners' reliance on the dissenting opinion in *Pelton Dam*, which presented their argument about the Desert Land Act, refutes their contention that the Court there must have overlooked language in previous decisions that petitioners now invoke in this case. In short, petitioners have offered no persuasive reasons why the Court should overrule its prior interpretation of the Desert Land Act.[24] See *Burnet* v. *Coronado Oil & Gas Co.*,

[23] Moreover, the Taylor Grazing Act did not affect water rights; 48 Stat. 1271, 43 U.S.C. 315b, provides: "That nothing in this Act shall be construed or administered in any way to diminish or impair any right to the possession and use of water for mining, agriculture, manufacturing, or other purposes which has heretofore vested or accrued under existing law validly affecting public lands or which may be hereafter initiated or acquired and maintained in accordance with such law."

[24] The effect of the Desert Land Act on the government's reserved rights to non-navigable waters was raised before this Court again in *Arizona* v. *California*, *supra*. See Brief in Support of Findings of Fact and Conclusions of Law Proposed by the United States, No. 9 Original, October Term 1959, at 56–61; Rebuttal Brief of the United States, No. 9 Original, October Term 1959, at 1–7; Reply Brief of the United States, No. 9 Original, October Term 1959, at 28–35.

285 U.S. 393, 406. The law in this respect has been settled for twenty years and if it should be changed that is a matter for Congress, which has thus far declined to act. See p. 25, *supra.*

II

THE UNITED STATES' RESERVED WATER RIGHT IS EQUALLY APPLICABLE TO SURFACE WATER AND GROUND WATER

Nevada urges the Court to refuse to "extend" the reserved right doctrine to underground water (Br. 27–33). But the reason for the right requires that it apply to underground as well as surface waters. Moreover, the nature of underground water, its relationship to surface water and the laws affecting each, far from militating against such application, support treating the two sources alike. Every court that has considered the matter—all located in arid areas—has agreed that the right is equally applicable to surface and underground water.

A. THE RESERVED RIGHT IS BASED ON THE NEED OF THE RESERVATION NOT THE CHARACTER OF THE WATER RESERVED

The reserved right, as we have pointed out, is not based on navigability or some other characteristic of the water, but on the initial possession of the land in question by the United States and its reservation for a purpose requiring the use of unappropriated waters. In reserving the land it is assumed that the United States intends to reserve the unappropriated water rights needed to fulfill the purpose of the reservation.

In *Winters* v. *United States, supra,* the Court rec-

ognized the tacit reservation of waters from a non-navigable stream and sustained an injunction barring diversions by up-stream land owners. The Court said (207 U.S. at 576): "The lands were arid and, without irrigation, were practically valueless. And yet, it is contended, the means of irrigation were deliberately given up by the Indians * * *"—a contention the Court rejected. If, rather than depending on a non-navigable stream for irrigation, the Indians had depended on wells, as is often the situation in Arizona and Nevada,[25] there would be no reason that their right to draw water from those wells should not be as fully protected as their right to draw water from a stream. The reservation would be equally as useless without the wells and the government's intent to reserve their use would be equally as clear. Similarly, it should not matter whether the water reserved for a federal use is interfered with by a surface diversion or by a well. The effect on the reserved land (no water available for its use) and the diverter (obtaining the use of water previously spoken for) is the same.

B. IT IS NOW WELL RECOGNIZED THAT GROUNDWATER AND SURFACE WATER ARE INTERCONNECTED AND SHOULD BE TREATED SIMILARLY BY THE LAW

Ground water and surface water are interlocking resources, part of the same hydrologic cycle, and should be treated similarly by the law. As a study for

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[25] See Trelease, *supra*, Legal Study No. 5, note 16, at 312, n. 110. For historic instances of Indian dependence on groundwater, see Kroeber, *Handbook of the Indians of California* 590, 694, 722 (1970).

the National Water Commission states (Corker, *Groundwater Law, Management and Administration*, National Water Commission Legal Study No. 6, pp. xxiv–xxv (1971), hereinafter "Corker"):

> Groundwater and surface water are physically interrelated as integral parts of the hydrologic cycle. Groundwater basins feed and are fed by surface streams. Surface water and groundwater are interchangeable for most purposes. Wells deplete surface streams. Depletion of surface streams depletes water supply to wells. Optimum utilization of ground and surface water usually involves conjunctive operation by which stored ground water supplements and firms up the supply of intermittently available stream water. *Different rules of law dependent on the surface or underground point of diversion promote and perpetuate misallocation of the resource.*[26] [Emphasis added.]

The present case illustrates the interrelationship between ground and surface water. Although Devil's Hole is perhaps best classified as surface water because it is a standing pool open to the sky, not water flowing through the interstices of porous rock, it could also be classified as ground water. See Corker, *supra*, at 44–45. Regardless of classification, however, its level is reduced by pumping from nearby wells.

The interrelationship of surface and underground water is now increasingly recognized in the laws and decisions of Western States. See Nev. Rev. Stat.

[26] See also *id.* at 146–157. We are lodging a copy of the Corker study with the Clerk of this Court. For a lucid account of the hydrology of ground water see Corker, *supra*, at 37–97 (*A Layman's Guide to Groundwater Hydrology*).

534.020 cited at p. 23, *supra*. See also *Templeton* v. *Pecos Valley Artesian Conservancy District*, 65 N.M. 59, 332 P. 2d 465 (Sup. Ct.), reproduced in part in Trelease, *Water Law—Resource Use and Environmental Protection* 543–546 (2d ed.); *City of Los Angeles* v. *City of San Fernando*, 123 Cal. Rptr. 1, 537 P. 2d 1250, 1281–1284 (Sup. Ct.); *United States* v. *Ballard*, 184 F. Supp. 1 (D. N.M.); Clark, *Arizona Ground Water Law: The Need for Legislation*, 16 Ariz. L. Rev. 799, 800–801 (1974). And the National Water Commission has recommended (Final Report at 233):[27]

> Recommendation No. 7–1: State laws should recognize and take account of the substantial interrelation of surface water and ground water. Rights in both sources of supply should be integrated, and uses should be administered and managed conjunctively. There should not be separate codifications of surface water law and ground water law; the law of waters should be a single, integrated body of jurisprudence.

Nevada argues (Br. 27–33), however, that it is difficult to determine the source and movement of groundwater and that consequently it is inappropriate to recognize a reserved right in such water. This argument, if accepted, would require that no appropriative right in ground water be recognized, in essence that the law return to the doctrine of *Acton* v. *Blundell*, 152 Eng. Rep. 1223 (Ex. Chamber), in which the court

[27] *Water Policies for the Future*—Final Report to the President and to the Congress of the United States by the National Water Commission (1973).

assumed that the flow of groundwater was not subject to proof and concluded that each landowner was therefore entitled to draw such water as he wished from his wells without regard for the consequences to neighboring owners. But this doctrine has been broadly rejected in America,[28] particularly in the West. Nevada was one of the early states to reject the common law of water rights (*Jones* v. *Adams*, 19 Nev. 78, 6 Pac. 442 (Sup. Ct.)), and Nevada statutory law, as indicated above, recognizes and protects appropriative rights to groundwater (see p. 23, *supra*).

Moreover, the factual premise of Nevada's argument does not exist in this case. Here the United States did not seek to enjoin the Cappaerts' pumping until hydrological studies showed that it was in fact their pumping that lowered the water level in Devil's Hole and until it could show the particular wells that did so. Moreover, far from affecting wells at some unforeseeable distance, as Nevada suggests (Br. 27–28), the only wells enjoined were specifically designated wells within two and one-half miles of the Monument (see p. 12, *supra*). The district court tailored its injunction to curtail pumping even from those wells only to the extent needed to preserve an adequate water level at

[28] See *Mecker* v. *City of East Orange*, 77 N.J.L. 623, 74 Atl. 379 (Court of Errors and Appeals), reproduced in part in Trelease, *Water Law—Resource Use and Environmental Protection* 461–465 (2d ed.); 5 Clark, *Waters and Water Rights* 407–416 (1972). In the West, apparently only Arizona and Texas still allow groundwater, in some circumstances, to be pumped without regard to the effect on neighboring landowners. See Clark, *Arizona Ground Water Law: The Need for Legislation*, 16 Ariz. L. Rev. 799 (1974); Trelease, *supra*, at 467.

Devil's Hole. In this respect the case is no different than if the Cappaerts had established a water right, and their neighbors some years later drilled wells near their property line and so reduced their water level that their wells could no longer draw—in which event petitioners would scarcely argue that the vagaries of the flow of underground water would make an injunction by the earlier user inappropriate.[29]

C. THE COURTS CONSIDERING THE ISSUE HAVE UNIFORMLY SUPPORTED THE APPLICATION OF THE RESERVED RIGHTS DOCTRINE TO UNDERGROUND WATER

In this case, both the district court and the court of appeals, which were doubtless familiar with water rights and water problems in the West, held that the government's reserved right extended to underground water and that the Cappaerts had infringed that right. While there has been very little prior litigation dealing directly with the applicability of the reserved rights doctrine to underground water, the two decisions that have touched on the matter are both in accord with the decision below. Neither is controlling here, but the reasoning in each supports the federal right.[30]

[29] See Nev. Rev. Stat. 534.110; *In re Waters of Manse Spring*, 60 Nev. 280, 286, 108 P. 2d 311, 314; *Barnes* v. *Sabron*, 10 Nev. 217. See also *City of Los Angeles* v. *City of San Fernando*, *supra*, 537 P. 2d at 1314–1317; *City of Pasadena* v. *City of Alhambra*, 33 Cal. 2d 908, 207 P. 2d 17 (Sup. Ct.).

[30] See also *United States* v. *Ballard*, *supra*. In *Ballard* the court was concerned with appropriated rights predating the establishment of Carlsbad Caverns National Park (some of which had

The District Court for Nevada held in a suit brought by the State Engineer that the United States' right to operate wells on the Hawthorne Naval Ammunition Depot in Nevada, was a question of federal law independent of state requirements and that the United States did not need permits from the State of Nevada to do so. *State of Nevada ex rel. Shamberger* v. *United States,* 165 F. Supp. 600. The court relied principally on the Nevada Enabling Act, which disclaimed jurisdiction over federal reservations, on the supremacy of federal law as to the requirements of federal installations, and on this Court's decisions in *Pelton Dam, supra,* and *Ivanhoe Irrigation District* v. *McCracken,* 357 U.S. 275.[31] The court rejected arguments similar to those made by the Cappaerts that the Desert Land Act transferred control to the State of the underground water involved and stressed the national defense aspect of the case.[32]

In 1968, in a suit in the federal Distirct Court for Montana by a surface lessee of land on the Blackfeet

been purchased by the United States), not reserved rights; but the court clearly recognized the interdependence of surface and groundwater uses and that federal rights are determined by federal law.

[31] In *Ivanhoe* the Court upheld the federal requirement that contracts for purchases of water from the reclamation projects at issue contain acreage limitations as provided in Section 5 of the Reclamation Act of 1902 (44 Stat. 649, as amended, 70 Stat. 524, 43 U.S.C. 423e).

[32] The court of appeals affirmed, 279 F. 2d 699, on the basis that because there were no adverse claimants the suit was not one as to which the McCarran Amendment (43 U.S.C. 666) applied and the United States accordingly had not consented to suit.

Indian Reservation, the lessee claimed that a mineral lessee infringed his water rights. The court found that the establishment of the reservation reserved underground waters to the same extent, and with the same limitations, as surface waters. *Tweedy* v. *Texas Co.,* 286 F. Supp. 383, 386. The court held (286 F. Supp. at 385):

> The *Winters* case dealt only with the surface water, but the same implications which led the Supreme Court to hold that surface waters had been reserved would apply to underground waters as well. The land was arid—water would make it more useful, and whether the waters were found on the surface of the land or under it should make no difference.

But the court found no actual infringement under the facts of the case, emphasizing that the reserved right, unless a permanent depletion of the water source is threatened, does not prohibit use by others of waters not actually being used for purposes of the reservation at the time.[33]

We attribute no more controlling authority to these cases than do the petitioners. But, together with the decisions below, they illustrate the consensus of courts considering the matter that the reservation of land for a federal use reserves rights to the underground water necessary for the purpose of the reservation, independant of state law.

[33] 286 F. Supp. at 386.

III

THE PRESIDENTIAL PROCLAMATION OF JANUARY 17, 1952 VALIDLY ESTABLISHED DEVIL'S HOLE AS A PART OF DEATH VALLEY NATIONAL MONUMENT AND THEREBY RESERVED THE UNAPPROPRIATED WATERS NECESSARY TO PRESERVE DEVIL'S HOLE POOL IN ITS NATURAL CONDITION, INCLUDING PRESERVATION OF THE FISH THAT LIVE IN IT

A. THE PRESIDENT ACTED WITHIN HIS AUTHORITY IN ESTABLISHING DEVIL'S HOLE AS A PART OF DEATH VALLEY NATIONAL MONUMENT

The Cappaerts argue (Br. 64–73) that under the American Antiquities Act, Act of June 8, 1906, 34 Stat. 225, 16 U.S.C. 431 *et seq.*, the President's only authority is to reserve federal lands for the purpose of protecting archeologic sites, and that the President may not attempt to reserve lands for other purposes. But the terms of the Act specifically authorize the President, at his discretion, to proclaim as national monuments "historic landmarks, historic and prehistoric structures, *and other objects of historic or scientific interest* that are situated upon the lands owned or controlled by the Government of the United States * * *." (Emphasis added.) It can hardly be doubted that Devil's Hole and the pupfish are "objects of * * * scientific interest" so situated (see pp. 3–6 *supra*).

The brief legislative history of the Antiquities Act (S. Rep. No. 3797, 59th Cong., 1st Sess. (1906); H.R. Rep. No. 2224, 59th Cong., 1st Sess. (1906); 40 Cong. Rec. 7331 (1906)) indicates only that the preservation of Indian ruins was one important goal of the Act. In light of the broader language of the Act, however, it

would be unwarranted to assume that Congress intended to exclude reservation of areas containing other objects of scientific interest and this Court has so held.

In *Cameron* v. *United States*, 252 U.S. 450, petitioner sought to sustain his mining claims within the Grand Canyon by, among other things, attacking the President's authority under the Antiquities Act to establish the Grand Canyon National Monument. The Court rejected the argument, stating (252 U.S. at 455–456):

> The defendants insist that the monument reserve should be disregarded on the ground that there was no authority for its creation. To this we cannot assent. The act under which the President proceeded empowered him to establish reserves embracing "objects of historic or scientific interest." The Grand Canyon, as stated in his proclamation, "is an object of unusual scientific interest."

The same is true of Devil's Hole.[34]

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[34] Moreover, since the Antiquities Act was passed, Presidents over the years have reserved many sites as national monuments that do not contain Indian ruins, including, in addition to portions of the Grand Canyon, Dinosaur National Monument in Colorado and Utah; Rainbow Bridge National Monument in Utah; and Saguaro National Monument, Arizona. For a listing of national monuments established by presidential proclamations under the Antiquities Act, see annotation, after 16 U.S.C. 431. This long standing and consistent interpretation of the Antiquities Act by the officers charged with its administration is entitiled to great weight. *Train* v. *Natural Resources Defense Council*, 421 U.S. 60; *Udall* v. *Tallman*, 380 U.S. 1, 16.

B. THE PRESIDENTIAL PROCLAMATION RESERVING DEVIL'S HOLE RESERVED THE WATER RIGHTS NECESSARY TO PRESERVE THE POOL AND THE FISH THAT LIVE IN IT

Both petitioners argue (Cappaerts Br. 57–64; Nevada Br. 21–24) that the President, in reserving Devil's Hole, did not intend to reserve water rights. There is no support for this contention. The obvious purpose of the Monument was, as the district court found (Finding 9, App. 362), "the preservation of the pool of water and the preservation of the Devil's Hole pupfish (*Cyprinodon diabolis*) which live therein." Petitioners' contention that the Proclamation emphasizes "the pool" rather than the fish that live in it (Cappaert Br. 56–64) ignores that the preservation of the pool in its natural state will also preserve the fish. The wording of the proclamation shows that both the pool, and the fish that made it significant, were purposes of the reservation. Indeed, it is difficult to think of a reservation that would more clearly carry with it a reservation of water rights.[35]

[35] The Cappaerts (Br. 62–64) argue that certain persons urged government officers to use a "travertine limestone formation" as a pretext for reserving Devil's Hole (Br. 62–64) and therefore the proclamation should not be construed so as to protect the fish. This argument must be rejected because (1) the evidence cited is hearsay, as to which the district court properly sustained a hearsay objection (App. 132); (2) the evidence shows only what private individuals urged the government to do—it does not show what government officers actually did; and (3) if federal officers ever had considered using the "travertine formation" as a pretext for saving the pupfish, they obviously dropped those plans for, while the pupfish are prominently mentioned in the proclamation, the proclamation is devoid of any mention of a "travertine formation."

Moreover, the proclamation placed the Monument under the authority of the Director of the National Park Service "as provided in the [National Park Service Act of] August 25, 1916 (39 Stat. 535; 16 U.S.C. 1–3)". That Act provides that the "fundamental purpose" of all national parks and monuments is "* * * to conserve the scenery and the natural and historic objects and *the wildlife therein* and to provide for the enjoyment of the same in such manner and by such means *as will leave them unimpaired for the enjoyment of future generations.*" (16 U.S.C. 1; emphasis added.) Needless to say, this "fundamental purpose" cannot be achieved in respect to Devil's Hole unless the pupfish have such water as is required for their continuing survival. In other words, the waters are necessary to accomplish the "fundamental purpose" for which the federal land was reserved and, as previously noted, it is precisely this element that gives rise to an implied federal reserved water right.[36]

IV

THE DEFENSE OF RES JUDICATA CANNOT BE INVOKED TO BAR THE ACTION BY THE UNITED STATES IN THIS CASE

Both petitioners contend (Cappaerts Br. 83–89; Nevada Br. 42–47) that because in December 1970 the State Engineer granted the Cappaerts certain

[36] The Cappaerts argue (Br. 77–79) that if the United States desired to protect the pupfish it should have obtained water rights by condemnation. But, so far as the record shows, there were no rights to condemn in 1952. The Cappaerts' pumping at issue here, the only diversion interfering with the federal right, did not begin until 1968 (see p. 7, *supra*).

pumping permits over the protest of the National Park Service this action is barred by *res judicata* or collateral estoppel.

Under Rule 8(c) of the Federal Rules of Civil Procedure, *res judicata* and collateral estoppel "are affirmative defenses that must be pleaded" in the answer. *Blonder-Tongue Laboratories, Inc.* v. *University of Illinois Foundation,* 402 U.S. 313, 350. Although failure to plead this affirmative defense can result in its being waived,[37] neither the Cappaerts nor Nevada invoked *res judicata* in their answers (App. 15–20). The district court's findings of fact and conclusions of law (App. 359–368) do not mention *res judicata,* the Cappaerts did not brief the point on appeal and it is not one of the questions presented in their petition for a writ of certiorari. Accordingly, the Cappaerts have waived this defense and should not be permitted to raise it in this Court.

Intervenor Nevada, as stated above, also failed to plead the affirmative defense of *res judicata* or collateral estoppel in its answer, although the State did press these arguments on appeal[38] and did allude to them in their trial brief (R. 350–351). Moreover, as between Nevada and the United States, the State can hardly claim *res judicata* or collateral estoppel as a defense to the suit. The State was not a party to the permit proceeding and it was in no way in privity with the Cappaerts, who have waived this defense. In

[37] See James, *Civil Procedure* § 4.9 (1965).

[38] The court of appeals rejected Nevada's arguments in this regard on the merits (Pet. App. A–13—A–16).

these circumstances, neither *res judicata* nor collateral estoppel may be raised. See *Blonder-Tongue Laboratories, Inc.* v. *University of Illinois Foundation, supra,* 402 U.S. at 320–326; *Bernhard* v. *Bank of America Nat. Trust & Savings Ass'n,* 19 Cal. 2d 807, 122 P. 2d 892 (Sup. Ct.)

Moreover, petitioners' *res judicata* defense is plainly inapplicable to two of the eight wells involved in this case. Petitioners argue that the State Engineer's granting of the Cappaerts' applications for permits to pump water from certain wells in December 1970 precluded the United States from later seeking to restrict such pumping. Regardless of the merits of petitioners' argument, which we discuss below, two of the wells (Well Nos. 16 and 17) [39] were not involved in that proceeding (App. 209, 279–280). At the time the case was tried in the district court, no permit had been issued in regard to Well No. 16 (App. 209) and although a permit apparently was issued at some time for Well No. 17 (*ibid*), the proceedings (if any) before the State Engineer with respect to that permit application are not in evidence. In addition, the district court's injunction applies not only to those wells (Wells Nos. 16 and 17) and the ones involved in the 1970 proceeding before the State Engineer (Well Nos. 1, 2, 3, 4, 5 and 6), but also to future withdrawals of water from certain areas of the Cappaerts' land to the extent this interferes with the government's reserved right (App. 368)—areas that, of course, were not the subject of

[39] These wells were not put in until January 1972 (App. 260).

the 1970 proceedings since the court's order refers to future wells and permit applications (App. 364, 368).

In any event, contrary to petitioners' contentions, the proceedings before the State Engineer did not bar the United States from seeking an injunction in federal court to restrict the Cappaerts' pumping of water, which interfered with the government's reserved water right at Devil's Hole and threatened the existence of the pupfish living there. While the application of principles of *res judicata* to administrative proceedings is uncertain,[40] at a minimum the defense cannot be successfully invoked unless "the issue decided in the prior adjudication [was] identical with the one presented in the action in question." *Bernhard* v. *Bank of America Nat. Trust & Savings Ass'n, supra,* 19 Cal. 2d at 813, 122 P. 2d at 895, quoted in *Blonder-Tongue Laboratories, Inc.* v. *University of Illinois Foundation, supra,* 402 U.S. at 323; see also ALI, Restatement of *Judgments,* Sections 1, 72 (1942). It is therefore necessary to examine the precise nature of the proceedings before the State Engineer in this case.

The State Engineer is, by statute, required to be a registered professional engineer trained in hydraulic and general engineering. Nev. Rev. Stat. 532.030. Before a person may withdraw public waters, he must obtain a permit from the State Engineer.[41] Nev. Rev.

[40] See 2 Davis, *Administrative Law Treatise*, Sections 18.01–18.12 (1958).

[41] Nevada law requires a three-stage process for perfecting water rights; (1) a person must apply for and obtain a permit from the State Engineer to appropriate water, Nev. Rev. Stat. 533.325 and 534.050. Any "interested person" may file a written protest against the granting of the application. Nev. Rev. Stat. 533.365.

This relatively simple procedure for authorizing new diversions is in contrast to the more formal procedure for adjudications of relative water rights among competing claimants. See Nev. Rev. Stat. 533.090–533.320, 534.100. Significantly, under the adjudicatory procedure, the State Engineer is required to make an initial determination of the relative rights of competing water claimants which he then must file in state court where it is subject to review. Nev. Rev. Stat. 533.450. While a full adjudicatory procedure, after a court decree, may constitute *res judicata,* petitioners have not cited, nor have we been able to find, any Nevada case holding that the State Engineer's decision to issue permits to appropriate waters, such as those at issue here, constitutes an adjudication of water rights binding upon the protestant.

Moreover, there are compelling reasons why the proceeding held here should not be *res judicata* in regard

Stat. 533.325–533.375; (2) after receiving his permit, he must begin and complete his water system within the time limits specified in the permit and submit proofs to the State Engineer, Nev. Rev. Stat. 533.380–533.420; (3) if the State Engineer determines that all of the requirements of state law are met, he will issue a certificate of appropriation which must be filed with the county recorder, Nev. Rev. Stat. 533.425. The record here shows only that the Cappaerts obtained certain permits from the State Engineer; the Cappaerts have never demonstrated that they perfected any water rights under Nevada law. See App. 226–227.

to the reserved water rights of the United States. (See, also, in this regard, the Brief of the State of California as *amicus curiae,* at pp. 13–15.) First, by statute the State Engineer's granting of a pumping permit is expressly made "subject to existing rights" (Nev. Rev. Stat. 533.430) and when the State Engineer granted the Cappaerts' permit applications in 1970 he stated that "the applications will be issued subject to existing rights * * *" (App. 312). This is a firm indication that the reserved rights of the United States were not, indeed could not be, determined by the proceedings before the State Engineer and that the government's federal action to determine whether it had "existing rights" was not barred.

Beyond this, the nature of the National Park Service's protests precludes treating the State Engineer's determination as *res judicata* in regard to federal reserved rights at Devil's Hole. The Park Service requested the State Engineer to deny outright or postpone granting the Cappaerts' applications pending completion of hydrologic studies of the area to determine the effect of pumping on the water level at Devil's Hole (App. 286–294). The field solicitor of the Department of Interior candidly admitted that the reports that had already been completed "tend mostly to indicate the need for further studies. These reports indicate that the precise data is not available at the present time and that is why we are urging most strongly that you withhold action until the other reports are completed which will be of a highly technical and ac-

ceptable nature" (App. 295).[42] It was only after the studies were completed and showed the deleterious effect on Devil's Hole of the Cappaerts' pumping that this suit was instituted.

In this situation, the State Engineer's granting of the Cappaerts' applications could not have amounted to a determination that the United States had no reserved rights in regard to Devil's Hole. The National Park Service did not litigate that question but asked only for more time to complete further studies that were needed to determine the effect of the Cappaerts' pumping. The State Engineer merely refused to postpone acting on the applications and the Cappaerts' counsel himself pointed out that the studies "will go forward whether or not the applications are granted; so let's not make the mistake of thinking that if these applications are granted the studies are moot, they are not" (App. 307).[43]

The situation here is thus not one in which the "administrative agency is acting in a judicial capaci-

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[42] The Cappaerts' attorney characterized the Park Service's position as (App. 298): "We want to protest but we have not established and don't have the grounds upon which we can protest and we would like some more time to develop that ground. If we don't, fine, then you can grant the application justified on the basis of the presently existing study which has been proposed."

[43] The only reference by the State Engineer to a federal reserved water right at Devil's Hole occurred at App. 310, when he stated that *the Cappaerts' attorney* had mentioned a "federal water right." But, the State Engineer continued, "[t]here is no record of a water right on Devil's Hole" and therefore he declined to consider further what effect granting the applications would have on such a right.

ty," *United States* v. *Utah Construction & Mining Co.*, 384 U.S. 394, 422, and in which the issue involved in the present case is one that was or could have been fully litigated in the prior administrative proceeding. Indeed, even if that were the situation, the courts have often refused to allow a *res judicata* defense to bar a public interest;[44] and prevention of the extermination of the Devil's Hole pupfish is plainly in the public interest, as President Truman's proclamation indicates. As Mr. Justice Black stated for the Court (in a judicial rather than an administrative context) in *United States* v. *California*, 332 U.S. 19, 40:

> The Government, which holds its interests here as elsewhere in trust for all the people, is not to be deprived of those interests by the ordinary court rules designed particularly for private disputes over individually owned pieces of property; and officers who have no authority at all to dispose of Government property cannot by their conduct cause the Government to lose its valuable rights by their acquiescence, laches, or failure to act.

In sum, this is a suit within the jurisdiction of the federal courts under 28 U.S.C. 1345 and the United States has properly invoked the jurisdiction of its court to determine a question of federal law; no issues of state law are involved and the suit is not one to review the action of a state administration agency; the federal reserved water rights involved here were not—and could not appropriately have been—litigated

[44] See 2 Davis, *supra*, at Section 18.03.

in the proceedings before the State Engineer; and the State Engineer's decision in 1970 to issue permits for six of the eight wells that are now subject to the district court's injunction did not bar, under applicable principles of *res judicata* and collateral estoppel, the United States from bringing this suit to prevent extermination of the Devil's Hole pupfish.

It was entirely proper for the field solicitor to make his presentation to the State Engineer in order to direct attention to the probable effect of the increased pumping. This was cooperative and responsible behavior by a public servant and when the State Engineer issued the permits despite the protest, it was equally responsible for the United States to wait until the actual effect of the pumping could be isolated and proved, and then to bring this suit in federal court seeking recognition of its federally created water right and an injunction of the Cappaerts' pumping to the extent necessary to protect the national monument.

CONCLUSION

For the foregoing reasons, the judgment of the court of appeals should be affirmed.

Respectfully submitted.

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OF THE

United States

OCTOBER TERM, 1975

Nos. 74-1107
74-1304

UNITED STATES OF AMERICA,
Plaintiff and Appellee,

vs.

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT,
B. L. BARNETT, individuals, and
SPRING MEADOWS RANCH,
Defendants and Appellants,
and
STATE OF NEVADA, ex rel. ROLAND D. WESTERGARD,
State Engineer,
Intervenor and Appellant.

BRIEF FOR INTERVENOR-APPELLANT STATE OF NEVADA

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In the Supreme Court
OF THE
United States

October Term 1975

Nos. 74-1107
74-1304

United States of America,
Plaintiff and Appellee,

vs.

Francis Leo Cappaert, Marilyn I. Cappaert,
B. L. Barnett, individuals, and
Spring Meadows Ranch,
Defendants and Appellants,

and

State of Nevada, ex rel. Roland D. Westergard,
State Engineer,
Intervenor and Appellant.

BRIEF FOR INTERVENOR-APPELLANT STATE OF NEVADA

The State of Nevada, Intervenor-Appellant, in the District Court of the State of Nevada and the Ninth Circuit Court, respectfully requests that the order of the United States Court of Appeals for the Ninth Circuit, entered

in the above-entitled case on December 4, 1974, affirming the decision of the District Court granting a permanent injunction in favor of Respondent-United States of America and against Appellant-Francis Leo Cappaert, et al., be reversed and said injunction dismissed.

OPINIONS BELOW

The findings of fact, conclusions of law, and final decree of the United States District Court for the State of Nevada are reported in 375 Fed.Supp. 456 (1974). The opinion of the Ninth Circuit Court entered December 4, 1974, is reported in 508 F.2d 313. The text of the Ninth Circuit Court opinion is set out in Appendix "A" to the State of Nevada's Petition for a Writ of Certiorari filed herein.

JURISDICTION

The final judgment of the District Court of Nevada was entered on April 9, 1974, (375 F.Supp. 456 (1974).) The judgment of the Court of Appeals affirming the District Court's judgment was entered on December 4, 1974, (508 F.2d 313 and Intervenor-Appellant's application for writ of certiorari). A timely petition for rehearing was denied on January 31, 1975. (Intervenor-Appellant's application for writ of certiorari). The jurisdiction of this Court is invoked under 28 U.S.C. § 1254 (1).

STATUTES INVOLVED

State and federal statutes involved in this case are set forth in Appendix "A".

QUESTIONS PRESENTED

I. Does the Doctrine of Implied Reservation Apply to Create in the United States Government a Right to Appropriate Unappropriated Water Beneath Reserved and Non-Reserved Lands?

II. Does the State of Nevada Have Jurisdiction to Determine Both the Existence and Scope of All Water Rights, Including Reserved Rights, That Might be Asserted to the Water in Devil's Hole?

III. The United States Government is Precluded by the Principles of Res Judicata from Collaterally Attacking the Administrative Decision on Defendants Cappaerts' Applications for Appropriation.

STATEMENT OF THE CASE

Appellants Cappaerts have set forth in their brief an extensive and detailed statement of the facts with particular emphasis on facts concerning the nature of the ranch, Devil's Hole, the pupfish, and the background of the Presidential Proclamation reserving Devil's Hole Monument, all of which petitioner State of Nevada agrees with, and it would serve no purpose to reiterate in total those facts. However, certain limited facts are worth repeating especially with regards to the action of the United States Government prior to the filing of its Complaint.

In April of 1970, prior to this action and pursuant to state law, appellants Cappaerts and their predecessor Spring Meadows, Inc., filed application with the State of Nevada for appropriation of groundwater by means

of wells located on appellants Cappaerts private land adjacent to Devil's Hole Monument (R 000355, Appendix, pp. 281, 282 of Designated Record).

Subsequently the United States Government through the National Park Service protested in writing said application. (R 000257-280, Appendix Exhibit 12-17, pp. 269-280 of Designated Record). A hearing in which the United States Government participated fully through counsel from the Solicitor-General's office, who presented evidence in the form of both witnesses, (R 000403-000417), and documents, (R 000370, lines 19-25, Appendix pp. 294-295, R 000371, Appendix 215 of Designated Record), was held on December 16, 1970. Following the hearing the State Engineer rendered his decision to issue the permits to appellants Cappaerts to appropriate the groundwater, specifically rejecting the existence of a federal water right (R 000434-437, Appendix pp. 310-311 of Designated Record).

Approximately six (6) months later the United States Government filed in Federal District Court its Complaint and Motion for Preliminary Injunction. The decision of the State Engineer was not appealed by the United States Government as provided for by Nevada law.

Following entry of a preliminary and final injunction by the District Court recognizing an implied water right in the United States Government and restricting the pumping of water adjacent to Devil's Hole, notices of appeal were filed with the Ninth Circuit Court of Appeals by appellants Cappaerts and Intervenor State of Nevada.

Following the submission of briefs and oral argument, the final judgment of the Ninth Circuit Court of Appeals

was entered on December 4, 1974, affirming the District Court's judgment on the ground that the reservation of Devil's Hole by the Presidential Proclamation issued pursuant to the authority of the 1906 Act for the Protection of American Antiquities (Act of June 8, 1906. See 306, 34 Stat. 225, now 16 U.S.C. § 431-433) created an implied water right in the United States Government to all unappropriated water beneath reserved *and* non-reserved private land necessary to insure the survival of the pupfish; and further, holding that the United States Government is in no way bound by the state water laws in establishing such an implied water right.

SUMMARY OF ARGUMENT

I. THE CIRCUMSTANCES SURROUNDING THE RESERVATION OF DEVIL'S HOLE DOES NOT JUSTIFY IMPLYING AN INTENT TO RESERVE WATER RIGHTS THAT AFFECT WATER ON ADJACENT NON-RESERVED LAND.

It is the contention of the State of Nevada that a thorough analysis of the facts of the cases that have invoked the implied reservation doctrine establishes that the doctrine is based upon the concept of necessity which in turn invokes a process of a competing interest, not just the interest of the United States Government. As a result, if the purpose of the reservation requires some water and if effecting such purpose is of more importance to the general welfare than use of the water by competing interests, the doctrine may be applied. Absent such compelling circumstances, it should not be applied.

Because the application of the reservation doctrine creates new water rights with wide ranging ramifications,

the act of reservation itself, i.e., the congressional legislation authorizing such reservation, should be strictly construed as should the other circumstances surrounding the reservation, such as the nature of the water, i.e. underground water.

The circumstances surrounding the reservation of Devil's Hole Monument does not support an implied intent to use reserved water rights.

Congress did not give President Truman authority under the terms of the Antiquities Act, which was the basis for the reservation, to also reserve water rights. Additionally, the implied reservation theory should not be applied to ground water because of the highly unusual and unpredictable nature of its hydrology. Also, the nature of the competing water interests—the use of the water by the farmer versus the highly speculative allegation that such use will, some time in the future, affect the evolution of fish—dictates strongly against an implied right.

II. THE UNITED STATES GOVERNMENT SHOULD BE REQUIRED TO EFFECT THEIR WATER RIGHTS IN ACCORDANCE WITH STATE LAW.

The United States Government, when it desires to assert a water right of whatever kind, should be required to comply with the state procedures for asserting such right. If it feels aggrieved by the decision of the state body, it should then appeal to the Federal District Court, which would have jurisdiction because it involves a federal question. Congress, beginning with legislation passed in 1866, has on several occasions expressed its clear in-

tent that the states shall have control of all of the water in the state on public land. Several judicial decisions, which are cited hereinafter, have confirmed this interpretation. Interpreting the McCarran Act (Appendix A, page I), to have waived the sovereign immunity of the United States Government in water right cases is simply a further extension of congressional policy that the states should determine the existence and scope of all water rights, including those claimed by the United States Government.

By interpreting it broadly and together with the various other earlier congressional enactments, this legislation is authority for requiring the United States Government to comply with state procedures for asserting their water rights.

This result is confirmed in principle in the case of *U. S. v. District Court for the County of Eagle*, 401 U. S. 520, 28 L.Ed. 2d 278, 91 S.Ct. 998 (1971), which held that the states have authority to adjudicate appropriative, riparian, and reserved rights.

III. THE UNITED STATES GOVERNMENT IS BARRED BY THE PRINCIPLE OF RES JUDICATA FROM ASSERTING WATER RIGHTS IN THIS ACTION.

The United States Government participated fully in the state administrative hearing on whether to grant to Appellants Cappaerts water through various wells on their land by filing written protests presenting documentary evidence and presenting testimony through a hydrology expert. Counsel for the United States was allowed to fully argue the basis of the government's protests to Cappaerts' applications.

Full participation in an administrative hearing that decides the issues involved in subsequent litigation should bar the subsequent litigation.

The theory of res judicata applies even if certain issues were not raised if, in fact, they could have been raised at such hearing. The United States Government could have more fully raised the issue of an implied right by specifically arguing such or presenting additional evidence to support a claim to an implied water right. However, the fact that they failed to more diligently pursue their claim does not prevent the doctrine of res judicata from applying.

ARGUMENT

I. DOES THE DOCTRINE OF IMPLIED RESERVATION APPLY TO CREATE IN THE UNITED STATES GOVERNMENT A RIGHT TO APPROPRIATE UNAPPROPRIATED WATER BENEATH RESERVED AND NON-RESERVED LANDS?

The instant case presents a clear conflict between federal water need and private rights, and the collateral question of whom shall determine the extent and scope of those rights. The first question that must be answered is whether an implied right can be found to exist from the circumstances of this case.

Initially, it is the contention of the State of Nevada that Congress did not give President Truman authority under the terms of the Act for Protection of American Antiquities, 16 U.S.C.A. 431-433, which was the statutory basis for the executive proclamation reserving Devil's Hole Monument to also reserve water rights. However, even assuming that such authority is implied or unnecessary, it is the further contention of the State of Nevada that the implied reservation doctrine should be narrowly construed, and unless the act of reservation clearly expresses the intent to claim a federal water right, the doctrine should be applied only in limited circumstances.

In order to make a valid determination as to whether the United States Government can have a right to the use of the water in Devil's Hole and from beneath the surrounding private land by virtue of the implied reservation doctrine both historical development of the water law in the State of Nevada and the circumstances surrounding the reservation of Devil's Hole must be examined.

A. Appropriative water rights.

Basic to an understanding of the issues involved in the instant case, particularly with regards to the State of Nevada's position, is some further understanding of the historical development of various water right doctrines or theories that have developed and been in existence for some time in the State of Nevada.

In 1848 as a result of the treaty of Guadalupe Hidalgo, the United States Government became the owner of public domain land formerly owned by Mexico and which included most of the area now designated as the State of Nevada. In and after 1848, principally through the activities of the miners of the Nevada area, the custom and concept of prior appropriation arose. The concept of prior appropriation is that a prior appropriator of water was protected against later appropriations, with the central principle of this doctrine being that beneficial

use of water, not land ownership, is the basis of the right to use the water. *Atchison v. Peterson,* 87 U.S. 507 (1874); Powell, Real Property, Vol. 5, page 734, page 442.

During the period between 1848 and 1866, various state supreme courts, including Nevada's, adopted and used the customary law of prior appropriation as a basis for resolving early water disputes, thus making prior appropriation the common law of the western states, *Irving v. Phillip,* 5 Cal. 140 (1955); *Lobdell v. Simpson,* 2 Nev. 274 (1866). Recognition by the United States Government of the custom of prior appropriation before 1866 was implied by virtue of the fact that they allowed such use to take place upon public domain without dissent. *Basey v. Gallagher,* 87 U.S. 670, 22 L.Ed. 452 (1874).

Between 1866 and 1877 Congress enacted several public land laws which were judicially interpreted to mean that the existence, use and control of water rights on the public domain land should be determined in accordance with local custom, law and court decision.

The first of these Congressional enactments was the Act of July 26, 1866, Ch. 262, § 9; 14 Stat. 253 (now Act of July 10, 1952, Ch. 651, § 208(A-2), 66 Stat. 560, 43 U.S.C. § 661 (1938)), which specifically recognized the existence and validity of water rights acquired prior to the statute pursuant to local custom, law or court decision.

The United States Supreme Court confirmed this interpretation of the 1866 statute by holding that said statute was a Congressional recognition of the validity of water rights established pursuant to local custom. *Atchison v. Peterson,* supra; *Basey v. Gallagher,* supra, and *Jennison v. Kirk,* 98 U.S. 453, 460 (1878).

A later, even more significant act in this regard was the Desert Land Act of 1877, 19 Stat. 377, 43 U.S.C. § 321 (1958), which was judicially interpreted in 1936 to have severed, for purposes of private acquisition, soil and water rights on public lands, and further provided that such water rights were to be acquired in the manner provided by the law of the state of location, thereby judicially confirming that the water was under *public ownership. California Oregon Power Co. v. Beaver Portland Cement Co.,* 295 U. S. 142 (1935); *Federal Power Commission v. Oregon,* 349 U. S. 435, 448 (1955). The Court in *California Oregon Power Co. v. Beaver Portland Cement Co.,* supra, said in interpreting the meaning of the Desert Land Act and the 1866 Act, "[T]he effect of these acts is not limited to rights acquired before 1866. They reach into the future as well, and approve and confirm the policy of appropriation for a beneficial use as recognized by local rules and customs and the legislation and judicial decision of the arid land states, as the test and measure of private rights in and to the unappropriated water on the public domain."

In *Ickes v. Fox,* 300 U.S. 82, the Court held that by the Desert Land Act, "if not before, Congress had severed the land and water constituting the public domain and established the rule that for the future the lands should be patently separated . . .; *but all non-navigable waters were reserved for the use of the public land under the laws of the various arid land states".* Id. at 95. (Emphasis added). The Ninth Circuit Court in 1939 stated that the Act of 1866 was a formal confirmation of local laws and usage which had prior to said date met with acquiescence on the part of the federal government. *U.S.*

v. Walker River Irrigation District, 104 F.2d 334 (CCA 9th 1939).

The Desert Land Act has also been interpreted as severing underground water, as well as surface water, from the land and, therefore, applying to all water on or under public land. *State v. Dority,* 225 P.2d 1007 (N. Mex. 1950); *California Oregon Power Co. v. Beaver Portland Cement Co.,* supra.

The 1866 and 1877 federal acts as subsequently interpreted by the courts are clear Congressional expressions that all water located on public land within a particular state is a subject of primarily local significance, and the rights to use such water should be determined, controlled and administered by the states. The above cases taken together constitute an unequivocal holding that the Desert Land Act and related statutes have transferred sovereign authority over water within these boundaries to the states thereby specifically rejecting the theory that the United States *owns* such water.

By 1913 Nevada, in line with the clear intent of the several cited Congressional enactments and judicial determinations, had adopted a comprehensive water code which established a systematic and orderly procedure for procuring an appropriated water right. (Statutes of 1913, Ch. 140, in Chapter 440 now Chapter 533.010 of the Nevada Revised Statutes, etc.) Pertinent provisions appear in Appendix "A." A similar statutory scheme (Statutes of 1936, Chapter 178 now Chapter 534 of the Nevada Revised Statutes) was adopted in 1939 for underground water, and its pertinent provisions appear in Appendix "A."

The water right statutes of Nevada accord the same privileges to the United States Government as to any other public or private entity in making an appropriation of water. Ownership of real property is not necessary to support the right to use water. The various federal land acts, cited above, declared all water situate on or under public domain land to be *publici juris,* and the Nevada court and legislature merely carried out that Congressional intent in its water code.

The constitutionality of the basic principles of the Nevada water code were upheld in the cases of *Vineyard Land and Stock Co. v. District Court,* 42 Nev. 1, 171, page 166 (1918) and *Humboldt Lovelock Irr. Light and Power Co. v. Smith,* 25 F. Supp. 571, 575 (D. Nev. 1938).

The concept of federal government water rights being determined pursuant to state law is not new. The necessity of compliance of the federal government with the laws of the State of Nevada in the acquisition of water rights has been noted in several cases. *Bergman v. Kearney,* 241 F. 884, at 892 (D. Nev. 1917); *U.S. v. Humboldt Lovelock Light and Power Co.,* 97 F.2d 38, pp. 42-45 (CCA 9th 1939).

Both the state and federal judicial and legislative histories of water development in the State of Nevada establish beyond doubt that the Nevada state statutory scheme is necessarily applicable to determining the existence and scope of any "right to the use of water in the State of Nevada." Additionally, as will be demonstrated in Section II, infra, the State of Nevada's statutory water scheme also provides a perfectly satisfactory

method of adjudicating the existence and scope of implied rights that may be asserted.

B. Implied reservation theory.

During the latter stages of the long history of the recognition and development of the appropriation doctrine as the accepted and legitimate means of determining water rights in waters on or under public domain in the State of Nevada, the seeds of the so-called "reservation doctrine" were sown.

The bitter-sweet fruits of that doctrine found their first judicial application in *Winters v. U.S.*, 207 U.S. 564 (1908), wherein it was invoked to provide water rights to surface water for Indians who had been relocated pursuant to a written treaty with the United States Government on a small, arid tract of land called a reservation for purposes of earning a living by farming. Although the area of the reservation was described in the terms of the treaty and specifically reserved from public land for use by the Indians, the treaty itself failed to expressly mention anything about water rights. The court after a thorough discussion of the circumstances pointed out that the Indian reservation land would be useless without irrigation water and held that in the absence of an express provision so providing the only inference that could be drawn from these circumstances was that when the United States Government restricted the Indians to a particular tract of land for purposes of farming, it also intended to provide at the same time the right to appurtenant surface water from the non-navigable Milk River so that the land could sustain life.

Even in light of these very compelling circumstances, the court recognized the highly sensitive area of competing water interests when in interpreting the meaning and effect of the treaty said:

> "We realize there is a conflict of implication, but that which makes for the retention of the water is of greater force than that which makes for their cession."

The court in the *Winters* case was undoubtedly weighing the conflicting equities in their determination as to whether to "imply" a congressional intent to reserve water rights for the benefit of the Indians. Certainly the reasoning of the *Winters* case does not sustain a contention that mere reservation of land for Indian, or more particularly for non-Indian uses, *automatically* reflects an intention to reserve the water as well.

The doctrine that grew out of the *Winters* case was a doctrine of need, an equitable doctrine. It was a recognition of the right to reasonable use of water based upon need, not the fact the Indians or government owned the land.

The next occasion the United States Supreme Court had to talk about the reservation doctrine was in the case of *Federal Power Commission v. Oregon, supra,* hereinafter referred to as the *Pelton Dam* case. This case specifically involved the Federal Power Act, 49 Stat. 863 (1935); 16 U.S.C. Sections 791-888(c) (1958), the purpose of which is not applicable to the present case. The *Pelton Dam* case was essentially a matter of construction of the effect of the Federal Power Act. It is a so-called "supremacy" case, and the discussion of the implied reservation doc-

trine was essentially dictum, and not necessary to the disposition of the case. All that was required to reach the decision the court did was to hold that the Federal Power Act should prevail by virtue of the Supremacy Clause of the United States Constitution.

The Federal Power Act was an express pronouncement by Congress stating that certain lands and the water on the land should be used for purposes of establishing electrical power sources for urgently needed electricity. The Act contains certain provisions regulating the use of water needed for the power project. Therefore, the need to imply the intent to reserve water was not present in that case. The intent was expressed in its very terms.

Although the court in the *Pelton Dam* case discussed the theory of ownership of land as creating a water right in the United States, all that was necessary to sustain the issuance of the license without state approval was the recognition that the Federal Power Act, as an expressed purpose of Congress to utilize certain water in furtherance of its constitutional power for the protection of the general welfare (U.S. Constitution, Article I, §8) superseded the inconsistent provisions of Oregon State law.

It is interesting to note in light of the government's strong advocacy for protection of the fish in the instant case that the real justification and effect of the *Pelton Dam* decision was that the purpose of the Federal Power Act to provide much needed electrical power for the general welfare of the people must take priority over the state's concern for the conservation of fish.

The next judicial mention of this court of the implied reservation doctrine was in the case of *Arizona v. California*, 373 U.S. 546 (1963). In this case the United States asserted claims on behalf of various Indian reservations and other non-Indian national lands to water both from the tributaries located in various states and the main stream of the Colorado River. Page 595. Because of the provisions of the Boulder Canyon Project Act, 45 Stat. 1057 (1928) excluding tributaries from federal control, the special master appointed by the court specifically refused to consider any government claims to tributaries and only addressed himself to the adjudication of the main stream claims. Page 595. Before the court began any discussion of the implied reservation theory, they also specifically stated that they would consider only the claims of the government on behalf of the Indian reservations to water in the main stream, not tributaries. Page 595. Due to the fact that the various states located along the main stream of the Colorado River, after several years of negotiating, could not agree on a scheme to control the use of the water of the Colorado River, Congress, through the provisions of the Boulder Canyon Project Act, stepped in and withdrew the state's authority and control over the main stream in order to provide a comprehensive water use plan beneficial to all of the states. The Indian reservations for which the United States Government was claiming water rights were adjacent to the main stream. In reality, the effect of the master allocating implied water rights to these reservations only from the main stream, was merely a carrying out of the expressed congressional intent that the main stream water be allocated to all users bordering the river.

In effect the master was acting only on "specifically reserved water covered by the project act in the main stream

of the Colorado River." Again, the same result could have been reached through the supremacy of the federal legislation over the various state interests. However, the court did go on to discuss the implied reservation doctrine. The application of the implied reservation doctrine in the *Arizona v. California, supra,* case came only in response to an argument by the State of Arizona to the effect that no water rights were reserved by congressional enactment because there was no evidence showing Congress intended to reserve such water. Page 598.

In response the court, utilizing the principles of the *Winters* case, held that the circumstances of the Indians, i.e., being forced to live in a dry, arid area of the State were special and compelling circumstances that justify the finding of an implied congressional intent to also reserve water for their use. Pages 599, 600.

The real basis of the portion of the decision relating to Indian reservation land was the unusual circumstances surrounding the plight of the Indian as a result of U. S. Government action. The special circumstances of the Indian could justify only one inference—the United States Government intended to provide them with water as well as land, and the court's result was perfectly in line with the *Winters* decision.

However, the court, regrettably without any illuminating discussion, went further and stated that they agreed with the special master that the principle underlying the reservation of water rights for Indian reservations was equally applicable to non-Indian reservations. Page 601. Thus, without any discussion whatsoever of the circumstances surrounding the existence of recreational areas,

the court concluded that the principle established in the *Winters* case automatically applied to non-Indian lands. Yet, just as in the *Winters* case, the court in the *Arizona v. California, supra,* case in considering the Indian reservation land went very carefully into the special circumstances from which they implied congressional intent to reserve water for Indian lands.

Therefore, it is difficult to understand how the implied reservation theory whose application was carefully supported by examination of circumstances surrounding the act of reservation can suddenly be used to support a reservation of water rights without any examination of circumstances at all.

Thus, just as in the case of Indian lands the intention of the United States Government to reserve water for use on non-Indian land should only be implied after an examination of the circumstances surrounding the act of reservation.

Finally, in 1971 the court in the case of *U. S. v. District Court for the County of Eagle,* 401 U.S. 520, 28 L.Ed.2d 278, S.Ct. 998 (1971), suggested, by dictum, with very little discussion, as the Colorado Court was not determining whether the United States had reserved rights or not, that the implied reservation doctrine could be applied to all types of federal reservations. The real impact of this case will be discussed in Section II, infra.

In effect the above-cited cases have created the availability, depending upon the circumstances, of a third system of establishing water rights.

A thorough analysis of the facts of each of the relatively few cases that have invoked the implied reservation

doctrine establishes that said doctrine is based upon the concept of necessity, whether it is the need to provide a living for the Indians or to provide much needed electrical power or to carry out the expressed power of Congress in providing for the national defense, *Nevada, ex rel. Shamberger v. U. S.*, 165 F. Supp. 600 (D. Nev. 1951), infra, and not upon the concept of ownership by virtue of ownership of the land.

To say that every time the federal government acquires land for reservation it acquires the right, state law notwithstanding, to appropriate all such water as it needs, is an unwarranted extension of the real meaning of the cases discussing the implied reservation doctrine.

The theory that the United States Government is the "owner" of water by virtue of owning reserved land is a judicial fiction created to reach a result justified by the existence of overriding public interests. The import of this argument is to say that even though Congress expressly gave the states control over water on public land and itself retained title only to the land when the same body changes the status of the land from public to reserved, it by implication automatically takes back the same water right it expressly gave.

The theory of establishing implied rights based upon equity principles is not new to the law. The doctrine of implied reservation should be recognized for what it is and should be—an equitable method of creating a water right in the United States Government if the circumstances, i.e., the purpose of the reservation viewed in light of all the competing interest and ramifications of the reservation, warrant creating such a right.

C. The circumstances surrounding the reservation of Devil's Hole do not justify the application of the implied reservation doctrine.

Considering the judicial development of the implied reservation theory, the primary question seems to be: Is the governmental purpose for reserving the land of sufficient magnitude to justify the creation of water rights by implication in degradation of state law?

Congressional intention to appropriate unappropriated waters by virtue of an action of reservation can only be measured by examining all the circumstances. The State of Nevada contends that while recognizing the existence of the so-called "implied reservation doctrine," the circumstances surrounding the reservation in the instant case do not justify the application of the doctrine.

1. Presidential proclamation reserving Devil's Hole.

Initially, it is necessary to closely examine the act of reservation creating Devil's Hole as a national monument. By virtue of Presidential Proclamation 2961, dated January 23, 1952 (R.I. 256), a 40-acre tract of public domain surrounding a pool of water known as Devil's Hole was set aside as an addition to the Death Valley national monument. A reading of the proclamation reveals that the protection of the scientifically unique underground pool itself, not the fish in the pool, was the primary concern in making the reservation. The proclamation itself recites that "[T]he said pool is a unique subsurface remnant . . . and is unusual among caverns in that it is a solution area in distinctly striated limestone". There is no specific reference to the preservation of the pupfish. The only reference to fish is in the fourth Whereas clause wherein the

presence of the fish are cited as additional evidence of the historic and scientific value of the *pool*.

The intent to protect the scientifically and historically valuable pool, not the fish, is patently clear from a reading of the proclamation.

The authority for creating national monuments such as Devil's Hole by Presidential proclamation is found in the Act for the Protection of American Antiquities (16 U.S.C.A. §§431-433). As is ably pointed out in appellant Cappaert's brief filed herein the Antiquities Act itself and its legislative history support the proposition that Congress' intent was to limit the types of objects and the amount of land subject to withdrawal. The statute seems to demonstrate Congressional intention only to authorize the President to protect antiquities as opposed to fish, animals, etc. The act allows the President to reserve small tracts of land, but it makes no mention of reserving water.

The expressed intent obvious in the Antiquities Act to limit the extent of any reservation made under the provisions of the Act is in direct conflict with the theory of the United States Government that the implied reservation doctrine extends automatically to all reservations merely by the simple act of reservation.

Certainly, the intent and purpose of the American Antiquities Act and implementing Presidential proclamation of 1952 are patently quite different than the Federal Power Act involved in the *Pelton Dam* case or the Indian treaties present in the *Winters* and *Arizona* cases. Each of these acts of reservation either expressly dealt with water, such as the Boulder Canyon Act, which withdrew

any state authority over the mainstream of the Colorado River, and the Federal Power Act, which basically dealt with the use of water for electrical power or involved circumstances surrounding the creation of the reservation, such as the various Indian treaties which could lead to no other conclusion than that water was intended to be reserved.

It is interesting to note that the Federal Power Act involved in the *Pelton Dam* case even describes what would be considered reserved land under the act in providing that reservation means "national forests, tribal lands embraced within Indian reservations, military reservations and other lands and interests in lands . . . ; *but shall not include national monuments, or national parks;* . . ." 49 Stat. 838, 16 U.S.C. 6796(2). (Emphasis added)

It is not reasonable to assume absent an express pronouncement in the underlying act authorizing the reservation or the existence of special circumstances surrounding the reservation that Congress intended to defeat through the means of "implied rights" the long-standing and well-established water law of the various states. The very terms of the American Antiquities Act tend to refute any implication of an intent upon the part of Congress to have the mere act of withdrawing lands for purposes of a national monument operate as an automatic foreclosure of state control over the water on such monuments. A more rational and supportable position is that the American Antiquities Act under which President Truman acted to withdraw the 40 acres surrounding Devil's Hole and which expressly limits its application

was specifically drawn so as to avoid conflict with state law to every extent possible.

2. Competing water interests.

A second circumstance that is present and somewhat unique in the present case is that it involves not a dispute over competing water rights between persons, such as in the *Winters* and *Arizona* cases, but a dispute over competing water rights between humans and fish. Even in the *Arizona v. California* case, supra, which is cited as the authority for the proposition that the reservation doctrine applies to all federally reserved land, Indian or non-Indian, there was no existing dispute pertaining to the water rights on national forests and recreational areas. The special master simply felt that since the federal lands were adjacent to the mainstream of the river that he should in pursuance of his assigned job of allocating the waters from the mainstream and in order to complete the allocation designate some amounts for the federal lands. Interestingly, underlying the dispute in the *Pelton Dam* case was the concern over the fish versus the need for the dam, and the effect of that decision was to say that the need, as expressed by Congress in the Federal Power Act, for producing electricity must take priority over the fish. Now the government is reversing the argument to say that the needs of the fish must take precedence over human needs.

The water under both the reserved and non-reserved land in the instant case is collected in the Ash Meadows Basin which is an underground drainage basin extending over an area of approximately 4,500 square miles. Without reciting the evidence in detail, which has been done

to a great extent in appellant, Cappaert's, brief, certain general conclusions can be stated based upon the evidence submitted at the two hearings on this matter. It seems apparent from the testimony of the hydrologist that the water in Devil's Hole is not confined to the reserved lands and that any substantial pumping on adjacent non-reserved land in the 4,500 square mile basin, even from many miles away will in time affect the water level in Devil's Hole. (Designated Record, p. 79, lines 1-16; p. 88, lines 5-16). As a result, any farming operations which would require substantial pumping of water from the underground basin would affect the water level in Devil's Hole. (Designated Record, p. 100, lines 10-30; p. 101, lines 1-15).

It has been further established without conflict that appellants, Cappaerts, have invested large sums of money in farming and ranching operations on the adjacent non-reserved land. Specific evidence supporting these conclusions is presented in detail in appellant, Cappaert's, statement of facts and the trial hearing transcript of the first hearing on July 3 and 5, 1972, which is part of the appellate record.

Equally apparent from the evidence presented at both trial hearings is that even the expert biologists cannot say with any degree of certainty what, if any, effect lowering of the water level will have on the pupfish in Devil's Hole. Often their opinions are conflicting as to what result might occur.

Applying the implied reservation theory as urged by the appellee would allow the United States Government for the *possible* benefit of the pupfish to effectively pre-

clude the use and development for the benefit of human beings of approximately 4% of the state which had heretofore been arid and useless land. Analyzing the circumstances and weighing the competing interests in the instant case, as was done in the *Winters* case, undoubtedly favors nonapplicability of the implied reservation doctrine. There is certainly no *justice* in allowing 40 acres of land to tie up the much needed use and development of some 4,500 square miles or more of non-reserved surrounding land. There is not one passage or statement in the *Winters* case, the *Arizona v. California* case, the *Federal Power Commission v. Oregon* case, or the *United States v. Eagle* case that appellee can point to to justify such a result based upon the special circumstances here involved.

Until the doctrine was applied in this case no one could point to a case where the implied reservation doctrine resulted in demonstrable injustice. However, we have now reached that result. Carrying the decision of the Circuit court to its natural conclusion it must be stated that as a practical matter that in any conflict between the needs of man and the fish, the fish have priority. Nothing is said about the possible extinction of the farmers if by the clearly expanded extension of the implied reservation theory, man finds it virtually impossible to live because of the priority given to other species.

In addition to the obvious detrimental effect the unrestricted application of the reservation doctrine will have on the adjacent private owners of non-reserved land such application will preclude or retard development and utilization of large areas located in other parts of the

State of Nevada due to the fact that Nevada contains large areas of reserved land much of which is the source of both surface and groundwater. Further, Nevada also contains large areas of public domain which is subject to further reservation which may quite easily result in this same conflict. Landowners will have little faith in developing land without some assurance of a protected right to the use of water. The lack of certainty, particularly with reference to future needs, that the reservation doctrine creates with reference to groundwater on non-reserved land will be discussed in the next section.

3. Groundwater.

Another circumstance herein involved which is of extreme importance, and possibly the most important circumstance, is the fact that the water is underground as opposed to surface water.

The very nature of underground water makes an extennion of the implied reservation doctrine to such water unreasonable. It is difficult to discuss, as the United States Government does, underground water as appurtenant water in the same sense as the term is used in relation to surface water. By its very nature it is impossible to locate underground water as appurtenant to a particular piece of land. As is readily apparent from the testimony of Dr. William Dudley, the government's expert geologist-hydrologist during the first hearing on the request for preliminary injunction, it is difficult, if not impossible, to locate either the source or the means of connection of the underground water in the Ash Meadow Basin area. Unlike surface streams, the effect

of one well on another well in a different location, often several miles distant, is difficult to determine. The movement of groundwater such as that located in the Ash Meadow Basin is governed by hidden geological formations and gravity thus making predictions of location a scientific guess at best. A semi-technical discussion of the proprieties of groundwater can be found in Thomas, *Underground Sources of Our Water,* USDA, the Yearbook of Agriculture, 1955 and Meyers and Landock, *Water Resource Management,* a Coursebook in Law and Public Policy, Chapter IV, pp. 553-566 (1971). Due to the groundwater's slow and unseen movement, the effect of using the water in one area may not be known for several years. Therefore, users of the water pursuant to state law may invest large sums of money based upon the existence of water only to find many years later that such use affects a distant area of land and very likely in Nevada, as in the instant case, a federal reservation.

The use of groundwater as a major supplemental source of water and, in many cases, the primary source, has increased dramatically in the last few years. To now insert the threat of the implied reservation doctrine into the realm of groundwater which is at best a highly unpredictable area would be an unwarranted and unnecessary extension of the doctrine. Most western states, including the State of Nevada, realizing the inherent difficulties of controlling the use of groundwater and on the other hand the necessity of making it available for use have enacted, in order to insert some certainty and equality into the use of groundwater, extensive statutes governing its use. Chapter 534, Nevada Revised Statutes.

It is quite obvious as earlier stated that the water in Devil's Hole is not confined to the reserved land, nor is the water in appellant, Cappaert's, wells confined to non-reserved land. To apply the implied reservation doctrine to exclude the State of Nevada's control under its statutes over the use of such underground water, thereby leaving no scheme of control at all on either the reserved or non-reserved land, would unquestionably defeat the expressed purpose of the Nevada statute, and the common good of the public and create chaos.

Further, since no one really knows the source of the water for Ash Meadow, the State Engineer could not grant applications for underground water in other areas of the state because it might very well affect Devil's Hole. He would not be in a position to issue any permits for the drilling of wells anywhere near reserved land due to the fact that the United States Government might sometime in the future assert a right to the same groundwater. Such a result would emaciate Nevada's statutory system of determining water rights. It is difficult to imagine that the cases applying the implied reservation theory intended this result.

Even more unsettling is the uncertainty the doctrine creates with reference to what groundwater rights the United States Government might, in the future, claim on existing reserved lands, of which Nevada is extensively endowed, such as national forests, which were once long distances from developed areas but are now adjacent to highly developed areas.

There are only two court decisions involved with groundwater under federal reservations, and both are

district court decisions and are distinguishable from the present case. The first case, *State ex rel. Shamberger v. U.S.*, supra, was appealed to the Ninth Circuit Court of Appeals, but the Court refused to consider the question due to lack of jurisdiction within the terms of 43 U.S.C. §666(a); and, therefore, the merits of the decision were never reviewed. 279 F.2d 699 (1960).

The land involved in *State ex rel. Shamberger v. U.S.*, supra, was a United States Government naval ammunition depot reserved prior to 1935 for the purpose of national defense. In 1935 the State of Nevada by specific legislative enactment ceded to the United States exclusive jurisdiction upon and over the land. The Court specifically noted that the development and operation of the wells on the federal property did not at anytime interfere with anyone's vested right. Id., p. 603. In its finding that the United States did not have to obtain permission from the state to operate the wells located on federal land the Court held that under the federal supremacy doctrine the laws of a state could not take precedence over expressed powers of the federal government, i.e., the specifically delegated power to provide for the national defense. Therefore, the purpose of the federal reservation (naval depot) being to further the national defense such purpose could not be frustrated by state law. The Court also placed some emphasis on the *Pelton Dam* case as a basis for its decision, but as earlier discussed the *Pelton Dam* decision was decided on essentially the same basis, i.e., a conflict of state law with the expressed purpose of Congress. It should be again emphasized that the *Pelton Dam* Court was dealing only

with water "on" the reservation, not groundwater. There seems to be no question that the problem of national defense was an overriding consideration in the *Shamberger* case and a special circumstance which is not present in the instant case.

The *Shamberger* case like the *Pelton Dam* case is a supremacy case wherein the power of the United States must take precedence over state's rights.

Even accepting for the moment the principle that under the reserved land theory the United States has exclusive control of the waters under the reserved lands, the contention of the United States Government that the government can, through the application of the implied reservation theory and procedurally through this injunctive action, control the use of water not on reserved land is completely without any basis in principle or case law.

The United States Government in the instant case has urged that the theory of implied reservation is applicable, both to give it exclusive control of the administration and use of the water in Devil's Hole and to allow it to prevent the use of underground water on adjacent *non-reserved land.*

The implied reservation doctrine, even though it may be conceded *arguendo* to apply to federal enclaves and even this monument reservation, at no time has been expanded to accord the federal government overriding interest and control and exclusive jurisdiction as regards non-reservation groundwaters. The *Shamberger* case and other cases may give federal immunity as regards surface water and drilling for groundwaters on federally reserved lands. They do not stand for the proposition

that such reservation can prohibit state grants of non-reserved groundwater. To do this would be to invest by implication the federal government with exclusive or overriding jurisdiction over all groundwater in this country and every presumed final state grant.

The *Shamberger* case does not stand for the proposition urged by the government. To say on one hand that the state cannot control the use of water on reserved land and then turn around and say, however, that the United States Government can control water on non-reserved land in degradation of the state law is a tortured and an unwarranted application of the *Shamberger* case or any of the cases setting forth the implied reservation theory. In the case of *U.S. v. Fallbrook Public Utility District,* 165 F.Supp. 806, 831 (1958), the Court faced with essentially the same conflict expressly rejected this type of extension of the implied reservation doctrine in holding that the United States Government may be entitled to use water in streams on the reserved land, but it was not entitled thereby to control use of water not on reserved land by preventing upper stream owners from appropriating water prior to it reaching the reserved land.

In *Tweedy v. Texas Company,* 286 F.Supp. 383 (D. Mont. 1968), although saying by means of *dictum* that the waters reserved to the Indian reservation were both surface and underground water, the Court did not use the implied reservation theory to decide the case, but rather concluded that such rights should be determined in accordance with federal law which is based upon need and use (the theory of prior appropriation). The Judge held

that the Indians could not establish title to the water through use or otherwise and relying on the case of *U.S. v. Ahtiamin Irrigation Dist.* 231 F.2d 321 (9th Cir. 1956), Cert Den. 352 U.S. 988, 1 L.Ed.2d 367 (1957) reasoned that what is reserved to the Indians is not the ownership of the water, but the right to use of it for the purpose of satisfying a need. Page 386.

D. Conclusion.

The implied reservation doctrine was not invoked in its initial stages on the basis of ownership of land and to attempt to now insert that principle as a basis is inaccurate, confusing and conducive to unreasonable and arbitrary results. The theory in its purest form involves a process of determining what competing interest is more in need of water. If the purpose of the reservation requires water and if effecting such purpose is of more importance to the general welfare than use of the water by a competing interest, the doctrine may be applied. If not, it should not be applied. This determination requires a close examination of all the circumstances. Viewed in this light the reservation doctrine is not inconsistent with the riparian doctrine or the prior appropriation doctrine, but rather is an exception to these doctrines if the special circumstances so dictate. An implied water right, if viewed in these terms, can be created, if justified, within the existing procedures for creating appropriative rights.

It is obvious to everyone familiar with the history of water development, particularly in the arid western states, that there must be water laws, but as stated in the words of Charles E. Coker, Esq., in a speech made

to the Colorado River Users Association on December 6, 1971, "[T]hat need for law will never be supplied by the unfettered discretion of federal attorneys acting as the voice of the federal sovereign".

Only in highly unusual situation should a water right need to be created by implication. Congress can quite easily protect the interest of the United States Government through express reservations which explicitly identify the water reserved in terms of quantity, source, place and purpose of use.

It is the position of appellant, State of Nevada, that none of the circumstances above discussed can be said to support an implied intent to reserve the water in Devil's Hole, and thus the doctrine of implied rights should not be here applied. In fact, the circumstances here involved dictate exactly the opposite result.

II. DOES THE STATE OF NEVADA HAVE JURISDICTION TO DETERMINE BOTH THE EXISTENCE AND SCOPE OF ALL WATER RIGHTS, INCLUDING RESERVED RIGHTS, THAT MIGHT BE ASSERTED TO THE WATER IN DEVIL'S HOLE?

Sound administration of the vital areas of water rights dictates that the determination, adjudication, and administration of all water rights, whether appropriative, riparian, or implied, must be within the confines of the existing state statutory schemes. This concept is not new to the law. Several federal district courts have stated that water rights the United States may have and the extent thereof must be determined by the law of Nevada. *U.S. v.*

Hennen, 300 F.Supp. 256 (D. Nev. 1968); *U.S. v. Humboldt Lovelock Light and Heat,* 97 F.2d 38 (9th Cir. 1938).

The Supreme Court in *California Oregon Power Co. v. Beaver Portland Cement Co.,* 73 F.2d 555 (9th Cir. 1934), 295 U.S. 142 (1935), laid the groundwork for state control when it provided for judicial acceptance of the Congressional policy, exerted through the various federal land acts, that water rights being essentially a local problem could be best handled in accordance with the state's own custom and law. This policy established the principle that the states should determine water rights unless Congress expressly stated otherwise.

In 1952 in an obvious attempt to waive its sovereign immunity and to give the states the power to involve the United States in the adjudication and administration of water rights, Congress passed as part of the Department of Justice Appropriation Act of July 10, 1952, Ch. 651, §208(a)-(c), 66 Stat. 560, 43 U.S.C. §666 (1970), the so-called "McCarran Amendment" (Appendix C, page XXV, Intervenor's Petition for Writ of Certiorari).

Several issues with regard to the provisions of the McCarran Amendment were resolved in a recent case. In *U.S. v. District Court for the County of Eagle, supra,* the court held that any federal questions presented in a state water adjudication proceeding could be decided originally by the state subject to review in a federal court. This Court further went on to hold that the U.S. Government's claim to reserved water rights, implied or otherwise, was subject to adjudication under state law by virtue of the McCarran Amendment by stating:

> "[W]e deal with an all-exclusive statute concerning the adjudication of right to the use of water of a river system which in section 666(a)(1) had no exceptions and which, as we read it, includes appropriative rights, riparian rights, and *reserved* rights." (Emphasis added.)

The federal government in the *Eagle* case also argued that its claimed reserved rights should not be subjected to the state proceedings because such implied rights may conflict with state appropriative rights which are inconsistent with reserved rights, but this court rejected the argument and clearly recognized the jurisdiction of the state to make a determination of the existence of reserved rights by stating:

> "*All such questions,* including the volume and scope of particular reserved rights, are federal questions, which, if *preserved,* are reviewed here after final judgment by a Colorado court." (Emphasis added.)

In *U.S. v. District Court for Division No. 5,* 401 U.S. 527, 28 L.Ed.2d 284, 291, 91 S.Ct. 1000 (1971), a companion case to the *Eagle* case, this court again reiterated its position that the states were perfectly capable of determining and adjudicating all federal water claims regardless of how they might arise.

The opinion of the Ninth Circuit Court is the present case held that the United States Government was not required to establish its water rights in Devil's Hole pursuant to the state proceedings because the government was not a named *defendant* in the administrative hearing on the application to appropriate water and said hearing was not a general adjudication.

This opinion, of course, presents a very narrow and strict interpretation of the McCarran Act. The comments of the Supreme Court in the *Eagle* and *District Court for Division No. 5* cases, *supra,* in response to the federal government's argument concerning the interpretation of the McCarran Act immediately disclose that this court does not intend to give it a narrow and strict application.

To carry the reasoning of the Ninth Circuit Court to its natural conclusion means that under the new, fuzzy, judicially created dual system of establishing water rights, whoever arrives first at the courthouse of its choice will determine the jurisdiction for determining water rights.

Viewed in the light of both the judicial and legislative development of water law, the McCarran Act is simply a natural extension of the concept long recognized by Congress in other land acts—that all water rights including those on land owned by United States Government should be determined by the various state proceedings. The McCarran Act in its broadest terms, along with the other various congressional enactments, comprise congressional authority of the proposition that the United States Government must perfect its water rights in the state forum like all other land owners.

To key the availability of state procedures to determine the federal government's water rights to the word, *defendant,* in the McCarran Act places an intolerable burden on the State of Nevada in light of its administrative adjudication procedure which, as do several other states, substitutes in the first instance in place of a court a state engineer, expert in the area of water (Appendix A, p. v,

Chapter 534, Nevada Revised Statutes, §534.020). The engineer's decisions are subject to judicial review by the district court (Appendix A, p. iv, Chapter 533, Nevada Revised Statutes, §533.450). In order to establish and maintain any certainty in terms of scope of use in its grant to a private user of the right to use groundwater on land adjacent to reserved land, the State of Nevada would be required to file a court action each time in order to qualify the United States Government as a defendant, which would under the reasoning of the Circuit court decision then allow the state to determine the question of implied water rights on reserved land.

Although the *Eagle* case involved surface water, there is no reason to believe that the same principles would not apply to groundwater. Section 666 (a) (1) of the McCarran Amendment provides "for the adjudication of rights to the use of water of a river system or other source . . ." (Appendix A, p. i). The use of the words "or other source" can only be interpreted as an all inclusive phrase thereby including groundwater. In considering a source other than a river system one immediately thinks of groundwater. It is hard to believe that Congress intended to exclude the provisions of the McCarran Amendment groundwater which by 1952 was quite obviously an important source of water in the western states. Certainly, this same court who reasoned that the phrase "or otherwise" included reserved rights would construe "or other source" to include groundwater.

The United States Government further argued in the *Eagle* case that since all of the water users were not involved as parties to the adjudication that the state proceeding was not a general adjudication within the meaning of the McCarran Amendment and, therefore, the United States could not be made a party thereto. The Court rejected this contention and held that it is sufficient if the "whole community of claims" is involved.

Although the instant case involves a determination of priorities between a private person and the United States Government, it is by no means so limited. An underground basin is analogous to a river system when considering rights to the use of surface water. The basin may be large or small, but it is a roughly defined area from which water can be extracted just as a river and its tributaries comprise an area from which surface water can be extracted. As earlier demonstrated, the use of groundwater from an underlying basin very often affects such water in the entire basin; but because of its underground character, it is difficult to predicate how large of an area and how many users will be affected. The large area of nonreserved land that overlies Ash Meadow Basin and is affected by the level of water in Devil's Hole is a prime example. A decision on the claims exerted by both parties in the instant case will affect the entire basin area of some 4,500 square miles and other users just as definitely as an adjudication of several claims on a river system will affect other users on the system.

In *U.S. v. Dist. Court for Division No. 5,* supra, a companion case to the *Eagle* case, the government argued that a state procedure for determining water rights in a very large drainage basin area on an application by application basis was not a general adjudiction within the meaning of the McCarran Amendment, but the Court again rejected

that contention and said that such proceedings affect the totality of claims in the basin.

In the truest sense of the word and certainly within the purview of the *Eagle* and *Division No. 5* cases the present controversy reaches the whole community of claims.

In Colorado where the *Eagle County* case arose water adjudications are procedurally done judicially. As in many other western states, Nevada uses the administrative adjudication procedure which substitutes in the first instance in place of a court a state engineer, expert in the area of water use. Chapter 534, Nevada Revised Statutes, Section 534.020. N.R.S. 534.020 and N.R.S. 534.080 set forth the procedures for acquiring a right to use groundwater and further provide that any orders or decisions of the state engineer are subject to judicial review by the District Court of the county where the water is located pursuant to NR.S. 533.450. The only real difference between the two systems being the forum for the initial hearing.

The federal question of implied reservation water rights can be and has been raised, as discussed in the next section, at the beginning stages of any proceeding under Nevada law. N.R.S. 534.050 and N.R.S. 534.080 both provide that rights to use groundwater must be obtained in compliance with Chapter 533. N.R.S. 533.325 states that a person wishing to appropriate public water for his use must file an application with the state engineer who must publish notice of such fact, and interested persons wishing to protest such application can do so, and such application and protest may be considered at a hearing. N.R.S.

533.365. Further, N.R.S. 533.370(1)(2) and N.R.S. 533.375 expressly provide that the application for unappropriated water may be refused if to grant it would "prove detrimental to the public interest". An implied right can be asserted by the government at the time any application is filed. The state engineer by virtue of the "public interest" provisions can recognize the existence of such a right and refuse any other application on such basis. If on the other hand the United States Government feels aggrieved because the state engineer did not recognize its asserted implied right, it may preserve the federal question by appeal to the District Court. N.R.S. 533.450.

A fair reading of the *Eagle County* case would reasonably lead one to believe that the McCarran Amendment would apply equally to states with administrative adjudication proceedings when the only difference is the initial forum. In light of the existence in several western states of the administrative adjudication procedure at the time of the McCarran Amendment, including McCarran's *own* state of Nevada, it is hard to believe Congress intended to exclude the administrative procedure as a method of determining the community of claims under the provisions of the amendment.

Absent a federal water law, the only alternative to recognizing the state's right to determine and administer water rights is the use of a special master appointed by the federal district court in each and every case. Would a special master be discharged after each case? If a dispute arose as to violation of court decree, would new masters be appointed? Who would pay the cost? Numerous problems are created if this system becomes the

accepted system for adjudicating and administering federal water rights.

III. THE UNITED STATES GOVERNMENT IS PRECLUDED BY THE PRINCIPLES OF RES JUDICATA FROM COLLATERALLY ATTACKING THE ADMINISTRATIVE DECISION ON DEFENDANTS, CAPPAERTS', APPLICATION.

Accepting the proposition established by the *Eagle County* case, supra, that at minimum there is concurrent, if not exclusive, jurisdiction in the State of Nevada over all groundwater beneath reserved lands and non-reserved lands unless Congress has expressly indicated otherwise, the United States Government by making an appearance in the administrative hearing on the applications of defendants to drill wells and use the water now in controversy should be held to have waived the right to have this case heard *de novo* in federal court and is precluded under the principles of res judicata from collaterally attacking the decision of the State Engineer by means of this proceeding.

This case at its inception was first brought before the state forum and the federal government recognized and participated in the decision. The decision carefully weighed the federal-private equities and ruled in a non-arbitrary matter. If in a state proceeding there is a collision between private adjudicated rights and reserved rights of the United States, the federal question can be preserved in the state decision and reviewed by the United States Supreme Court. *U.S. v. Eagle County,* supra, p. 526; *U.S. v. Dist. Court for Div. No. 5,* supra, p. 530. The federal government failed to perfect its state appeal remedies and

preserve the federal question of implied rights and is, in law and equity, estopped from reinitiating the case by going in the side door and asking the federal court to exercise its jurisdiction, concurrent though it may be, as though the case is beginning *ab initio.*

Defendants Cappaerts, et al., in accordance with the provisions of Chapter 533, Nevada Revised Statutes (Appendix A) filed application with the State Engineer's office in April of 1970, for appropriation of water from the certain wells located on their land adjacent to the 40-acre tract wherein Devil's Hole is located. Subsequently, the United States Government protested in writing said applications (R 000257-280, Designated Record Exhibits 12-17, pp. 269-280). The basis of each of the protests, in summary, was that the pumping of the wells would adversely affect the water in Devil's Hole which would result in harm to the fish living in the pool. No objection to the jurisdiction or the power of the State Engineer to grant or deny the applications was made, nor was there asserted on behalf of the United States Government any existence of a federal water right in the water. Subsequently, on December 16, 1970, the State Engineer pursuant to N. R. S. 533.365 held a hearing on the applications (R II 000355-000438). At the hearing the United States Government again reiterated in detail the reason for its objections to granting the applications (R 000360-000370, Designated Record pp. 286-295). The government'sevidence on this issue included a copy of President Truman's Proclamation of 1952 (R 000428-000429, Designated Record p. 304), and the testimony of George B. Maxey on the hydrology of the Ash Meadow

area (R 000404-000407). The nature, value, and extent of the competing interests of the federal government and the adjacent landowners was thoroughly argued by both parties at the time of the hearing. The State Engineer stated he would evaluate the government's reports and other evidence in rendering his decision (R 000371, lines 9-12). Testimony concerning the farming operation of appellants Cappaerts and their investment was presented through the ranch foreman Mr. B. L. Barnett (R 000373-000384). A reading of the administrative hearing transcript will reveal that the issue of the lowering of the water in Devil's Hole and its effect on the fish therein was thoroughly considered. The very same issue is presented to this court in the instant case. The hearing officer considered the existence of a federal water right but concluded one did not exist (R 000434, lines 11-16). The United States Government did not specifically assert an implied water right.

The State Engineer rendered his decision granting the applications and informed all parties that they had thirty (30) days in which to appeal. Neither party filed an appeal as provided for in N.R.S. 533.540.

The Ninth Circuit Court, in its opinion, implies that "since the solicitor did not raise the jurisdictional issues or any of the legal issues which the United States Government had to the right of water" they are not barred by *res judicata*.

In the case of *L.N.R.R. Co. v. Ohio Valley Tie Co.*, 242 U.S. 288 (1916) the United States Supreme Court held that issues that were or *could have been* adjudicated before the Interstate Commerce Commission as a result of

an administrative hearing were barred from being litigated in a subsequent court action. A party who fails to make a direct attack on an administrative order is barred by res judicata from making a collateral attack on the order. *Kessler v. Strecker*, 307 U.S. 22 (1939). Where a statute, such as the Nevada Water Code, provides for judicial review of the administrative order, any proceeding outside the purview of the statute is regarded as a collateral proceeding, *S.E.C. v. Central-Illinois Corp.*, 338 U.S. 96, 93 L.Ed.2d 1836 (1949) and an order issued pursuant to said statute is not subject to collateral attack. *U.S. v. William Tablet Co.*, 141 F.2d 141 (7th Cir. 1944).

In a more recent United States Supreme Court case involving an issue as to a collateral attack on an administrative decision, the Court in *U.S. v. Utah Construction Co.*, 384 U.S. 394, 16 L.Ed.2d 642 (1966) held that administrative findings were not subject to collateral attack.

In a very recent Ninth Circuit case, *Paramount Transport System v. Chauffeurs, Etc., Local*, 436 F.2d 1064 (9th Cir. 1971) the Court in holding the principle of collateral estoppel applicable to a hearing by the trial examiner under the Labor Management Relations Act stated that the doctrine of collateral estoppel is applicable to bar a collateral attack on an administrative decision even if the aggrieved party fails to appeal the decision.

It is sufficiently clear that appeal, where it exists, rather than collateral attack, is the remedy of parties disappointed by the decision of an administrative body in matters properly before them. *Reconstruction Finance Corp. v. Lithesty*, 185 F.2d 167 (1950). The exact definition of a theory upon which collateral attacks of adminis-

trative orders are barred is unnecessary. In *Bower v. Eastern Airlines,* 214 F.2d 623 (3rd Cir. 1954) which involved a dispute of a labor arbitration decision the court said:

> "We see no reason to give a party who has submitted a controversy to administrative action a second independent review of the decision. It doesn't matter if we say the party is bound by his own election between administrative remedy and judicial remedy or call it res judicata, he should not be allowed to attack the decision".

It has been clearly established that the United States Government can in a proper case be estopped. *Moser v. U.S.,* 341 U.S. 41 (1951); *Roberts v. Great American Insurance Co.,* 357 F.2d 938 (U.S. Ct. Cl. 1966). See also *Vestal v. Commissioner of Internal Revenue,* 152 F.2d 132 (U.S.C.A., Dist. of Col. 1945), wherein the Court said that in a proper case the doctrine of election or estoppel may be applied to the United States Government and its officials. The State of Nevada submits that the present case is a proper case for the application of these principles.

The principles of res judicata have been applied in at least one water controversy case involving the United States Government. In a case very similar to the present case which involved a water adjudication proceeding in which the United States asserted claims to certain water the Court held that the United States having become a party and the Court having jurisdiction of the subject matter any determination with regards to the water rights of the United States is res judicata to other proceedings. *Green River Adjudication v. U.S.,* 404 P.2d 251 (Utah 1965). The Court therein stated that "if the rule

were otherwise, the government through its agents, could be wholly arbitrary about asserting water rights, if and when, it pleased".

The proposition that the state courts do have jurisdiction over federally reserved water rights is clearly established in the case of *U.S. v. District Court of Eagle County,* supra, as previously discussed herein. Certainly, the sovereign immunity of the United States if it exists in these cases at all was waived and the government subjected to the jurisdiction of the state court by making its appearance in the administrative hearing on the subject applications. *U.S. v. Hennen,* supra.

The United States Government clearly made an appearance and argued its case in the administrative hearing held by the State Engineer of Nevada. The decision was entered against the United States, and it failed to appeal as provided in the Nevada Statutes. Now it takes the position that the state has nothing to say about what water can or cannot be used in the Ash Meadow area. To allow the United States Government to maintain this action would clearly violate the principle or res judicata and collateral estoppel and render meaningless the administrative order of the State Engineer.

The adjudication of water rights in the State of Nevada and other semi-arid western states is not an exercise in metaphysics, but a real and vital issue to the people who live here. Underground water is like the river water described in Justice Holmes' quote, "A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it." *New Jersey v. New York,* 283 U.S. 336, 342 (1931).

CONCLUSION

Initially, appellant, State of Nevada, is contending that the so-called doctrine of implied reservation does not and should not apply to this case. The cases setting forth that doctrine should be limited to their particular facts and not extend automatically to any reservation of land by the federal government.

The doctrine is not based upon ownership, but upon necessity. An implied intent like other implied rights recognized in our system of law is based upon principles of equity; therefore, such a right should not be created unless the equities so dictate. In order to imply an intent in accordance with equity principles the circumstances surrounding the reservation of Devil's Hole must be examined. A thorough examination of such circumstances, i.e., the President's proclamation, the competing interests and the nature of underground water, do not support an implied intent on the part of the United States Government to reserve the water in Devil's Hole at any certain level to the absolute exclusion of other water users.

That the federal government and the State of Nevada have at minimum concurrent jurisdiction to determine the existence and scope of any federal reserved rights is well established by the *Eagle County* case. The State of Nevada having jurisdiction to consider reserved rights, implied or otherwise, and the United States Government having appeared in an administrative hearing to determine such rights should be estopped from collaterally attacking the administrative decision. The government's proper remedy is to exhaust the administrative and judicial remedies provided in the pertinent statutes.

Therefore, we respectfully request that the order granting the preliminary injunction, dated June 5, 1973, should be reversed, and the complaint and motion for permanent injunction filed on behalf of the United States Government be dismissed.

Dated, Carson City, Nevada,
August 15, 1975.

Respectfully submitted,
GEORGE ALLISON,
PETER D. LAXALT,
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By GEORGE ALLISON,
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(Appendix A Follows)

APPENDIX

Appendix A

STATUTES INVOLVED

1. Federal Statutes

THE McCARRAN AMENDMENT, 43 U.S.C. § 666(a)

Consent is given to join the United States as a defendant in any suit (1) for the adjudication of rights to the use of water of a river system or other source, or (2) for the administration of such rights, where it appears that the United States is the owner of or is in the process of acquiring water rights by appropriation under State law, by purchase, by exchange, or otherwise, and the United States is a necessary party to such suit. The United States, when a party to such suit, shall (1) be deemed to have waived any right to plead that the State laws are inapplicable or that the United States is not amenable thereto by reason of its sovereignty, and (2) shall be subject to the judgments, orders, and decrees of the court having jurisdiction, and may obtain review thereof, in the same manner and to the same extent as a private individual under like circumstances: *Provided*, That no judgment for costs shall be entered against the United States in any such suit.

2. State Statutes

(a) The 1913 Nevada Act for the Adjudication of Water Rights, &c., now ch. 533 of the Nevada Revised Statutes, provides in pertinent part as follows:

> 533.010. *"Person" defined.* As used in this chapter, "person" includes a corporation, an association, the United States, and the State, as well as a natural person.

533.025. *Water belongs to public.* The water of all sources of water supply within the boundaries of the state whether above or beneath the surface of the ground, belongs to the public.

533.030. *Appropriation for beneficial use.*
I. Subject to existing rights, all such water may be appropriated for beneficial use as provided in this chapter and not otherwise.

533.035. *Beneficial use: Basis, measure and limit of right to use.* Beneficial use shall be the basis, measure and the limit of the right to use of water.

533.325. *Corporations, persons desiring to appropriate water, change place of diversion, manner or place of use to make application to state engineer for permits.* Any corporation authorized to do business in this state, or any person, as defined in NRS 533.010, or any citizen of the United States, or any person who has legally declared his intention to become a citizen of the United States, over the age of 21 years, desiring to appropriate any of the public waters, or to change the place of diversion, manner of use or place of use of water already appropriated, shall, before performing any work in connection with such appropriation, make an application to the state engineer for a permit to make the same.

533.365. *Interested person may file verified protest with state engineer against granting of application; notice to applicant of protest; hearings; technical rules of evidence do not apply.*

1. Any person interested may, within 30 days from the date of last publication of notice of application, file with the state engineer a written protest against

the granting of the application, setting forth with reasonable certainty the grounds of such protest, which shall be verified by the affidavit of the protestant, his agent or attorney.

2. . . .

3. The state engineer shall duly consider the protest, and may, in his discretion, hold hearings and require the filing of such evidence as he may deem necessary to a full understanding of the rights involved; but no hearing thereon shall be had except after due notice by registered or certified mail to both the applicant and the protestant. The notice shall give the time and place at which the hearing is to be held and shall be mailed at least 15 days prior to the date set for the hearing.

4. The hearings shall be conducted under such rules and regulations as the state engineer may make, which he is hereby empowered to make, for the proper and orderly exercise of the powers conferred herein; but technical rules of evidence shall not be deemed to apply.

533.370. *Approval, rejection of applications by state engineer; conditions; procedure; appropriation of waters of Colorado River.* [*Effective July 1, 1974.*]

1. Except as provided in subsection 2, the state engineer shall approve all applications made in proper form where all fees, as provided in this chapter, have been paid which contemplate the application of water to beneficial use, and where the proposed use or change does not tend to impair the value of existing rights, or to be otherwise detrimental to the public welfare.

2. Based upon the public interest and the economic welfare of the State of Nevada, the state engineer

may in his discretion approve or disapprove any application of water to beneficial use or any application which contemplates a change in the place or beneficial use of water to a use involving the industrial purpose of generating energy to be exported out of this state.

533.375 *State engineer may require additional information before approval or rejection of application.* Before either approving or rejecting the application, the state engineer may require such additional information as will enable him to guard the public interest properly, and may, in case of an application proposing to divert more than 10 cubic feet per second of water, require a statement of facts.

533.450. *Orders, decisions of state engineer subject to judicial review: Procedure; appeals; appearance of attorney general.*

1. Any person feeling himself aggrieved by any order or decision of the state engineer, acting in person or through his assistants or the water commissioner, affecting his interests, when such order or decision relates to the administration of determined rights or is made pursuant to NRS 533.270 to 533.445, inclusive, may have the same reviewed by a proceeding for that purpose, insofar as may be in the nature of an appeal, which shall be initiated in the proper court of the county in which the matters affected or a portion thereof are situated; but on stream systems where a decree of court has been entered, the action shall be initiated in the court that entered the decree. Such order or decision of the state engineer shall be and remain in full force and effect unless proceedings to review the same are commenced in the proper court within 30 days following the rendition

of the order or decision in question and notice thereof is given to the state engineer as provided in subsection 3.

(b) The 1939 Nevada Act relating to Underground Waters, now ch. 534 of the Nevada Revised Statutes, provides in pertinent part as follows:

534.010(d). *Definitions.*

(d) "Percolating waters" are underground waters, the course and boundaries of which are incapable of determination.

2. As used in this chapter, the terms "underground water" and "groundwater" are synonymous.

534.020. *Underground waters belong to public; subject to appropriation for beneficial use; declaration of legislative intent.*

1. All underground waters within the boundaries of the state belong to the public, and, subject to all existing rights to the use thereof, are subject to appropriation for beneficial use only under the laws of this state relating to the appropriation and use of water and not otherwise.

534.050. *Permit to appropriate water required before sinking well in designated ground water basin; no permit required in undesignated areas prior to water development; penalties.*

1. Every person desiring to sink or bore a well in any basin or portion therein in the state designated by the state engineer, as provided for in this chapter, shall first make application to obtain from the state engineer a permit to appropriate such water, in accordance with the provisions of chapter 533 of NRS relating to the appropriation of the public waters,

before performing any work in connection with the boring or sinking of such well.

2. In other basins or portions therein which have not been designated by the state engineer no application or permit to appropriate such water is necessary until after the well is sunk or bored and water developed. Before any legal diversion of water can be made from the well, the appropriator must make application to and obtain from the state engineer, in accordance with the provisions of chapter 533 of NRS, a permit to appropriate such water.

3. Any person using water after a permit has been withdrawn, denied, canceled, revoked, or forfeited is guilty of a misdemeanor. Each day of violation of this subsection shall constitute a separate offense and be separately punishable.

534.080 *Appropriation of underground water for beneficial use from artesian or definable aquifer; Acquisition of rights under chapter 533 of NRS; order to desist; dates of priority.*

1. A legal right to appropriate underground water for beneficial use from an artesian or definable aquifer subsequent to March 22, 1913, or from percolating water, the course and boundaries of which are incapable of determination, subsequent to March 25, 1939, can only be acquired by complying with the provisions of chapter 533 of NRS pertaining to the appropriation of water.

2. The state engineer may, upon written notice sent by registered or certified mail, return receipt requested, advise the owner of a well who is using water therefrom without a permit to appropriate such water to cease using such water until he has complied with the laws pertaining to the appropriation

of water. If the owner fails to initiate proceedings to secure such permit within 30 days from the date of such notice, he shall be guilty of a misdemeanor.

3. The date of priority of all appropriations of water from an underground source, mentioned in this section, is the date when application is made in proper form and filed in the office of the state engineer pursuant to the provisions of chapter 533 of NRS.

Supreme Court, U. S.
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IN THE

Supreme Court of the United States

October Term, 1975
No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

vs.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor [*and Petitioner in No. 74-1304*].

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

PETITIONERS' REPLY BRIEF.

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IN THE

Supreme Court of the United States

October Term, 1975
No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, *et al.*,
Petitioners,

vs.

UNITED STATES OF AMERICA.

STATE OF NEVADA *ex rel.* ROLAND D. WESTERGARD,
State Engineer,
Intervenor [*and Petitioner in No. 74-1304*].

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

PETITIONERS' REPLY BRIEF.

This is a reply brief. It will therefore not simply parrot the points already made on the Cappaerts' behalf, nor resort to any step-by-step debating point rebuttal of the contentions adduced by the United States. Rather, it will direct itself only to such of the government's arguments as most urgently require correction.

By way of preliminary, counsel for the Cappaerts ventures to obtrude a personal note. Some time back, a lawyer friend of his, who had appeared both for and against the United States in this Court, submitted

the following analysis. "What the government says in its briefs is an invaluable guide to its evaluation of the intrinsic worth of your own contentions. Whenever it feels reasonably sure of its ground, it will answer you in the body of its brief. If you have caused its representatives to worry, their reply will be relegated to a footnote. But, if you ever succeed in really scaring government counsel, then their invariable answer is silence."

The brief of the United States in the present cause conforms perfectly to the foregoing analysis.

At the outset the Cappaerts deem it necessary to point out to the Court that the government's twice repeated statement that the entire population of *Cyprindon Diabolis* inhabit Devil's Hole (U.S. Br. 3, 4) is not true. No citation to the record to support such statement appears in the government brief.

Finding 27 does state that "Transplant of the Devil's Hole pupfish has not to date proven to be a successful alternative course of action for the preservation of the Devil's Hole pupfish" (A. 365). In footnote 2 (U.S. Br. 4, 5) the government claims such finding is supported by substantial evidence and refers the Court to "App. 121". The Cappaerts are not, of course, now disputing the finding, but the government has neglected to tell the Court that the substantial evidence referred to was given at a hearing in July, 1972 and that in October, 1972 there was a transplant of pupfish from Devil's Hole to the Hoover Dam Refugium (1973 Tr. 50; not printed) and at hearings on July

1, 2, 1973, three days before the entry of the Preliminary Injunction (A. 4) the government's expert witnesses testified that although they could not then qualify the transplant as a success because there had been only two generations of pupfish in the refugium, they had multiplied and appeared to be thriving and there were approximately 170 pupfish in the refugium as of April, 1973 [1973 Tr. 50-53, 256-257, 260; not printed; Deft. 1973 Ex. E].

I.

THE HEART OF THIS CASE IS THE 1952 PROCLAMATION, AND THAT DOCUMENT, BOTH IN ITS TEXT AND IN ITS LEGAL SETTING, CLEARLY ESTABLISHES THAT IT DID NOT RESERVE ALL UNDERGROUND WATER FROM AN AQUIFER 4500 SQUARE MILES IN EXTENT.

Accepting solely for purposes of argument under the present heading, the proposition that (U.S. Br. 19) "the United States may, by reservation of public lands, also reserve such appurtenant waters as are required to accomplish the purposes for which the federal reservation was created", we turn to the text of the 1952 Proclamation (Pet. App. C1-C3).

The government's fragmented discussion of this, the basic document (U.S. Br. 5-6, 40-41), studiously avoids consecutive and hence meaningful examination of its terms. The Cappaerts will therefore reexamine the text of the 1952 Proclamation, standing alone, and will then view that instrument both in its contemporaneous legal setting as well as in the context of the physical facts involved in the present case.

A. The Text of the 1952 Proclamation Mentions Pupfish Only to Confirm the Remarkable Geological Significance of the Devil's Hole Pool That It Reserved, and Neither Declares Them to Be of Scientific Interest nor to Be Themselves Worthy of Protection.

The Cappaerts have already addressed themselves to the consecutive text of the 1952 Proclamation in unfragmented fashion (Capp. Br. 58-62); in order to avoid repetition and to spare this Court the burden of an overly lengthy reply, they respectfully incorporate that discussion by reference, and ask that it be read—or, if necessary, reread—at this juncture.

The short of the matter is that there is not a single word in the controlling 1952 Proclamation that designates the pupfish as independent objects of scientific interest, nor indeed even so much as a syllable therein that declares them either as worthy of or as entitled to protection.

Actually, the pupfish appear only in the fourth preamble of that Proclamation, where they are invoked simply as "geologic evidence" (Pet. App. C1) to confirm the geological importance of "this subterranean pool" (*ibid.*)—which alone is being set aside and reserved. The presence of the pupfish is not mentioned as being of either ichthyologic or biologic or zoologic evidence, nor of having substantive importance in those latter areas.

The government's reliance on Finding of Fact 9 (A. 362), which indeed recites that the preservation of the pupfish was one of the purposes of the reservation of Devil's Hole, is misplaced—for two reasons.

First, we are dealing here with the construction of a written document, resolution of which involves, not

matter of fact, but only a question of law. That much is hornbook learning, not requiring citation of authority.

To the extent that Finding 9 at A. 362 is duplicated by Conclusion of Law 3, A. 367, the latter constitutes a plain and indeed palpable misreading of a written instrument that a reviewing court is obviously free to interpret for itself, correcting the error committed below.

Second, insofar as the outside sponsors urging the reservation of Devil's Hole were concerned, it is undoubtedly true that *their* purpose was indeed the preservation of the pupfish, and that, being fully aware that in 1952 there was no legislative authority to set aside public land for the purpose of protecting rare or endangered species, they resorted to the subterfuge of stressing the geological significance of Devil's Hole. Here also, it seems sufficient simply to incorporate by reference, without argumentation or repetition, the pertinent evidence set out at Capp. Br. 62-64.

But the Cappaerts do find it necessary to point out a number of significant inaccuracies in the government's footnoted answer (U.S. Br. 40 note 35) to that evidentiary demonstration.

1. The suggestion that "the pupfish are prominently mentioned in the proclamation" had better be considered, certainly by any reader of the actual document, as simply an instance of over-exuberant advocacy.

2. It is similarly contrary to the record to suggest that the evidence of the ichthyologists' pretext and subterfuge is hearsay, to which objection was sustained. The cited ruling (A. 132) applied to only a single question and answer. All of the rest of the proof adduced at Capp. Br. 62-64 was admitted for all purposes.

3. Finally, the contention that "if federal officers ever had considered using the 'travertine formation' as a pretext for saving the pupfish, they obviously dropped those plans for * * * the proclamation is devoid of any mention of a 'travertine formation' " (U.S. Br. 40 note 35), betrays a lamentable lack of acquaintance with elementary geology.

The Proclamation declares Devil's Hole to be unique and, further, that it "is unusual among caverns in that it is a solution area in distinctly striated limestone" (Pet. App. C1). True, the word "travertine" does not appear—but travertine is simply limestone in any form of English! *The Random House Dictionary* (1966 ed., p. 1508) defines travertine as "a form of limestone deposited by springs". *The Oxford Universal Dictionary* (1955 ed., p. 2236) similarly states that travertine is "A white or light-coloured concretionary limestone, usu. hard and semi-crystalline, deposited from water holding lime in solution". Consequently the travertine formation put forward by the pupfish protagonists *did* obtain mention in the Proclamation, even though only its generic name was used.

There is, however, an area of agreement between the parties, viz., the government's statement (U.S. Br. 40 note 35) that "the evidence shows only what private individuals urged the government to do—it does not show what government officers actually did."

True enough; what the government officers did is shown by the text of the Proclamation—and that document, fairly read, shows only that the presence of the pupfish was further confirmation "that this subterranean pool is an integral part of the hydrographic history of the Death Valley region" (Pet. App. C1).

That is to say, the ichthyological enthusiasts did not succeed in making either the draftsmen of the 1952 Proclamation or President Truman himself into even unwitting participants in their scheme of dissimulation.

Indeed, they succeeded only in deceiving the courts below, both of whom rewrote the 1952 Proclamation by reading into it concern for endangered species not voiced by either Congress or the executive until many, many years afterwards. See Fdg. 28 (A. 365-366) and Conc. 9 (A. 367-368); C. A. 9 Op. *Passim*, but esp. at Pet. App. A1, A2, A4, and A7.

B. The Legislative History of the Only Statutory Authority on Which the 1952 Proclamation Purported to Rely Wholly Negatives Any Power to Set Aside Public Land for the Protection of Living Species.

The Cappaerts demonstrated (Capp. Br. 64-73) that the act for the preservation of American antiquities (Act of June 8, 1906, c. 3060, 34 Stat. 225, 16 U. S. C. §§431-433; Pet. App. D1-D2) originated as the proposal of a consortium of archeological societies seeking legal sanction for the preservation of prehistoric artifacts, and that this measure was wholly insufficient to authorize any reservation of public lands for the protection of any living species whatsoever.

To this the government replies (U.S. Br. 38) that the legislative history is "brief", and that *Cameron v. United States*, 252 U.S. 450, is authority against the Cappaerts (U.S. Br. 39). Thereafter—in a footnote (U.S. Br. 39 note 34)—it invokes the rule that great weight is to be accorded consistent administrative construction.

None of these contentions survives examination.

1. Although the Senate Report on the bill (S. Rep. No. 3797, 59th Cong., 1st sess.) is indeed brief, it is consistent only with the Cappaerts' contentions; it negatives those of the government.

There was no Senate debate, but the House Report (H. R. Rep. No. 2224, 59th Cong., 1st sess.), *non constat* the government's assertion, was voluminous. Only brief excerpts were set forth by the Cappaerts (Capp. Br. 68-69), but those were representative, and they presented the basic objectives of the bill—which were purely archeological. Anyone doubting that assertion is urged to examine the whole of the House Report.

Significantly, the government found nothing therein to quote against the Cappaerts. That circumstance should not occasion surprise. After all, this was legislation to preserve relics of the dead past, not to protect living creatures of any kind or description.

2. True, *Cameron v. United States,* 252 U.S. 450, is *contra* insofar as it interprets the act to include natural but inanimate phenomena, as the Cappaerts were at pains to point out (Capp. Br. 70-71). But the Court there, so far as its opinion discloses, did not undertake to examine the legislative history of the 1906 Act; the government, which has easy access to the briefs in the case (which litigants in Nevada do not), has referred to nothing in those briefs to the contrary; and, in the light of the very clear and unequivocal House Report, the conclusion is well-nigh inescapable that when Congress used the words "objects of historic or scientific interest", it had only artifacts in mind, not natural phenomena, much less any living creatures. For the statute contemplated "permanent preservation in

public museums", an objective appropriate for prehistoric artifacts of peoples long since vanished from the earth—but wholly impossible in respect of animals sought to be protected from extinction.

Indeed, even the *Cameron* case, which never referred to the legislative history, only included natural formations within "objects of historic or scientific interest". Nothing said in that opinion supports the government's present effort to include among American antiquities a species of marine life whose life span does not normally exceed a single year (A. 126).

3. The concept of a settled administrative construction, that cherished refuge of the overenthusiastic public functionary, here once again dusted off, collides in this instance with a countervailing principle, now conveniently overlooked. For, as this Court has pointed out, "Illegality cannot attain legitimacy through practice." *Inland Waterways Corp. v. Young,* 309 U.S. 517, 524. In view of the intent of the Congress that passed the act for the preservation of American antiquities, an intent unmistakably set forth in H. R. Rep. No. 2224, 59th Cong., 1st sess., the Cappaerts submit that it is the proposition last quoted that governs here.

Simply not to allow the matter to go by apparent default, the Cappaerts note that the government once again (U.S. Br. 41) relies on the generalized provisions of the 1916 Act creating the National Park Service (16 U.S.C. §1; Pet. App. D6) in its continuing attempt to broaden the scope of the 1952 Proclamation so as to include living organisms in a text that plainly does not do so by its terms.

The Cappaerts believe that they have already adequately disposed of that untenable effort (Capp. Br.

72-73). But they wish particularly to commend to the Court the treatment of the 1916 Act by Arizona and ten other States at pp. 17-21 of their brief *amici curiae* herein. Particular attention is directed to their showing that official National Park Service instructions lay down a policy that its personnel "should adhere religiously to state law with respect to the establishment and maintenance of water rights for use on lands under their jurisdiction".

C. The 1952 Proclamation Could Not Have "Intended" to Reserve Any Water Rights, Because at That Time the Rule of the California Power Case in 295 U.S. and of the Decisions Following It, to the Effect That Congress Had Ceded to the Arid-Land States All Jurisdiction Over Non-Navigable Waters Within Their Borders, Was Still Fully in Force.

As the Cappaerts have already shown in detail (Capp. Br. 29-37), this Court, beginning with *California Power Co. v. Beaver Cement Co.*, 295 U.S. 142, decided in 1935, and down through the *per curiam* in *Dority v. New Mexico ex rel. Bliss, State Engineer*, 341 U.S. 924, May 7, 1951, had consistently ruled that Congress by the several Desert Land Acts effected a severance of land and water on the public domain in the arid-land Western third of the country, ceding jurisdiction over all non-navigable water to the several States involved.

How—anywhere—does the government deal with the *California Power* decision? In, characteristically enough, a footnote (U.S. Br. 27 note 21), wherein the effect of that decision is sought to be minimized because it was "a case between private parties in which the United States did not participate".

The Cappaerts cannot forbear to mention that this suggestion obviously reflects a weird confusion between *stare decisis* and *res judicata;* they had not previously supposed that the United States is wholly unaffected by rules of law laid down in any case in which it is not itself a litigant.

But if that circumstance is now to be deemed a prerequisite to the precedential force of this Court's decisions, then the Cappaerts beg leave to refer to *Ickes v. Fox*, 300 U.S. 82, already invoked by them (Capp. Br. 35), but not even accorded footnote treatment in the government's brief. Instead, *Ickes v. Fox* receives the high tribute of silence.

Let us see why the government steams full speed astern from *Ickes v. Fox* at the present juncture. That was a case in which Mr. Ickes, then Secretary of the Interior, was petitioner, and in which he was represented by, *inter alia*, the Solicitor General. And that was a case, be it noted, in which a unanimous Court declared (300 U.S. at 95) that, by the Desert Land Act of 1877.

> "if not before, Congress had severed the land and waters constituting the public domain and established the rule that for the future the lands should be patented separately. Acquisition of the government title to a parcel of land was not to carry with it a water-right; but all non-navigable waters were reserved for the use of the public under the laws of the various arid-land states."

Decision going against the Secretary, the Solicitor General was impelled to take a step which, however commonplace for private litigants, has over the years been only rarely availed of by the government's prin-

cipal representative before this Court: He petitioned for rehearing. That step obtained only a slight modification of the opinion, but not in respect of the passage just quoted; in all other respects the petition for rehearing was denied (300 U.S. 640).*

More than that, the doctrine that the Desert Land Acts "effected a severance of all waters upon the public domain, not theretofore appropriated, from the land itself", was, following *Ickes v. Fox*, several times reaffirmed by this Court. *Nebraska v. Wyoming*, 325 U.S. 589, 612; *United States v. Gerlach Live Stock Co.*, 339 U.S. 725, 734; *Dority v. New Mexico ex rel. Bliss, State Engineer*, 341 U.S. 924.

The Cappaerts cited each of those later decisions (Capp. Br. 35-37). In reply (U.S. Br. 27 note 21), the government pays all of these, likewise, the compliment of silence, preferring to rely instead on two earlier rulings of the court below, plus one district court case whose holding was dictum at most—inasmuch as its order of dismissal was affirmed only because it had no jurisdiction to entertain the action! *State of Nevada v. United States*, 165 F.Supp. 600 (D. Nev.), 279 F.2d 699 (C.A. 9), discussed at Capp. Br. 50.

The severance doctrine, set out at some length at Capp. Br. 29-37, and, as has been shown, treated here by the government with a combination of footnote treatment plus some deafening stillness, survived until June 1955. Then, with every member of the *California Power* Court and of the *Ickes v. Fox* Court departed

*In view of *Cherry Cotton Mills v. United States*, 327 U.S. 536, and of *Rainwater v. United States*, 356 U.S. 590, the Cappaerts will not assume that the government ignores *Ickes v. Fox* simply because, having regard to *United States v. Lee*, 106 U.S. 196, the petitioner in that case was an officer of the United States rather than the United States *eo nomine*.

from the scene, *Federal Power Comm. v. Oregon*, 349 U.S. 435, determined that the severance doctrine did not apply to withdrawn lands.

The Cappaerts have shown (Capp. Br. 41-45) that this later decision rested on a controlling mistake of fact: The Court was quite unaware that by 1955 there no longer remained a single square foot of public land that had not been withdrawn for some purpose or other. There was by then no more unappropriated public land.

The Cappaerts remain of opinion, for reasons fully articulated in their brief (Capp. Br. 37-55), that the earlier or severance doctrine was soundly based in law, and that it should be reaffirmed and restored to full vitality.

They share the view, expressed here by no less than 16 States of the Union, 15 of which appear in their support, the 16th being the State of Nevada, intervenor below and now joint petitioner in No. 74-1304, that the implied reservation doctrine here being urged by the government to its ultimate limits in every kind of situation whatsoever, poses serious dangers to the future of the entire Western third of the Nation. That doctrine is uncertain in extent, as the present record dramatically discloses. That doctrine disregards the universally established Western rule of beneficial use. The Cappaerts respectfully urge on this Court the thoughtful discussion of those factors in the brief *amici curiae* filed in this cause by Arizona and 10 other States.

But—however vital it is to the continued existence of the entire arid-land third of the country that the implied reservation doctrine be very sharply limited, and that the earlier severance rule of *California Power*

Co. v. Beaver Cement Co. and of *Ickes v. Fox* be resurrected and revitalized, it is not necessary for the Cappaerts to pursue that issue here.

It is sufficient for the Cappaerts to put forward a much narrower proposition. All that they need to urge here, indeed all that they need to obtain reversal of the judgment below, is acceptance of their contention that the 1952 Proclamation, to be properly interpreted, must be construed in the light of the law then in force, and must not be rewritten by anachronistic after-readings.

The date of that controlling instrument was January 17, 1952.

Less than nine months earlier, on May 7, 1951, the Court had, in *Dority v. New Mexico ex rel. Bliss, State Engineer*, 341 U.S. 924, dismissed the appeal from *State v. Dority*, 55 N.M. 12, 225 P.2d 1007, on the ground that it did not involve a substantial federal question, citing *California Power Co. v. Beaver Cement Co.*, 295 U.S. 142.

Thus, when the 1952 Proclamation was signed, it was still the law that, when Congress had through passage of the Desert Land Acts effected the severance of land and water on the public domain, it had ceded jurisdiction over all such water, being non-navigable, to the several arid-land States. See Capp. Br. 29-37. And, at that time—January 1952—the single implied reservation case up to then decided, which antedated *California Power* by over a quarter of a century, had been specifically rested on the specialized principle that agreements with Indian tribes were to be construed in those tribes' favor. *Winters v. United States*, 207 U.S. 564.

It was not until more than three years after the basic January 1952 Proclamation in this case that there was any extension of the implied reservation doctrine, that there was announced, however unwitting it may have been, any limitation on the severance-and-cession-of-jurisdiction doctrine. *Federal Power Comm. v. Oregon*, 349 U.S. 435, June 1955.

Consequently, looking at the January 1952 proclamation in the light of what was intended thereby at the precise moment when it was signed by the President, any knowledgeable land law practitioner would have been bound to conclude that it reserved only the 40-acre tract specified therein, and that no one who drew it or signed it ever for a single moment "intended" to reserve even a single drop of water. For, with the limited exception of lands dealt with pursuant to agreements with Indian tribes, jurisdiction over all non-navigable water, by every pronouncement emanating from this Court up to that time, had long since been transferred by Congress to the several arid-land States.

It therefore follows that, regardless of whether, on the one hand, the severance doctrine of *California Power* and of *Ickes v. Fox* is reestablished and reaffirmed, regardless of whether, on the other, the Court eventually adheres to the unlimited doctrine of implied reservation expounded in later cases, the ruling below must still be reversed.

Because, when Devil's Hole was reserved, the severance rule, with its concomitant cession-of-jurisdiction doctrine, was unquestioned law. Therefore the 1952 Proclamation cannot be construed as reserving any water whatever, because, under the law then in force, the United States owned no non-navigable water that it would reserve. Under the law as it stood in 1952,

plenary power to dispose of all such water, being non-navigable, had long since been ceded to the several arid-land States.

To read into the 1952 Proclamation concepts of water law first formulated in 1955 and thereafter would, very obviously, give that document an improper post-dated effect.

The same erroneous and indefensible result follows from the effort to read into the 1952 Proclamation environmental concerns that were first articulated by the Congress in 1966, see Capp. Br. 13-15, or to interpret that Proclamation in the light of the pupfish having been declared an endangered species, a declaration that followed the January 1952 Proclamation by no less than 18 years plus 9 months (35 Fed. Reg. 16047, October 13, 1970).

Yet both of those retroactive factors are recited in the findings and conclusions that were approved below (Fdg. 28, A. 365-366; Conc. 9, A. 367-368).

Thus, up to now, the Cappaerts have been victims of what can only be described as judicial *ex post facto* action.

D. The Ruling Below Gives the 1952 Proclamation the Effect of Reserving, in Connection With the Setting Aside of a 40-Acre Tract, All of the Underground Water From an Aquifer 4500 Miles in Extent, a Result Necessarily Flowing From the Criteria Approved Below, but in Direct Conflict With the Specific Terms of the Statute on Which That Proclamation Was Rested.

It is of course true that the wells currently identified as affecting the Devil's Hole water level are within two and a half miles thereof (Fdg. 31, A. 366, cited at U.S. Br. 12). But that is only because, as the map following Capp. Br. 97 shows, the Cappaerts' farm is near Devil's Hole.

Moreover, to speak simply of two and a half miles (U.S. Br. 12) as measuring the scope of the decree now assailed minimizes its true scope in several important particulars.

First, that decree by its explicit terms limits drilling and pumping on no less than 21 specified sections; see Pet. App. No. 74-1304, p. xx. The Cappaerts' ranch consists of 12,000 acres (Opinion below, Pet. App. A. 2). Since every section of public land is 640 acres in extent, the decree affects 13,440 acres and thus the Cappaerts have been effectively enjoined from the use of their entire farm. (In terms of square miles, of course, 21 sections come to precisely 21 square miles.)

Second, the limitation imposed on the Cappaerts' pumping from that entire area is couched in terms of the resultant water level at Devil's Hole, regardless of a particular well's distance from the 40-acre reservation set aside in 1952.

That water level was twice fixed by the district court at 3.0 feet below the marker (A. 4, 5 [June 5, 1973]; Pet. App. No. 74-1304, pp. xix-xx [April 9, 1974]). It was that high 3.0 feet level that led to repeated—and repeatedly successful—applications to the court below for a 3.3 feet level in order to protect the Cappaerts' farming activities; see Capp. Br. 20-22 for details.

And that water level limitation over which the contest raged in the lower courts must be considered, not in the abstract, not in a vacuum, but in the light of the finding that "future wells in other areas of the ranch may have an adverse effect on the water level in Devil's Hole" (Fdg. 22, A. 364). Moreover,

according to the U.S. Geological Survey's hydrologist, called as the government's lead-off expert witness, any substantial pumping anywhere within the 4500 square mile aquifer will in time affect the water level in Devil's Hole (A. 78-80, 99-101). But, according to this same expert, the precise effect of such pumping, whether close or distant, cannot be accurately predicted (A. 65-67, 99-102, 103-105, 253). Indeed, this record shows that this expert's own predictions as to the effect of pumping from two specified Cappaert wells were promptly disproved (A. 264-265, 267-268; Capp. Br. 75-76).

The net of the foregoing is that the government's case for protecting the pupfish by invoking the 1952 Proclamation as legal authority for regulating the Devil's Hole water level actually involves the assertion of a prior right to all underground water in the 4500 square mile aquifer that transmits water to, and hence affects, that water level.

Consequently, to give effect to the government's basic proposition here (U.S. Br. 19), that "the United States may, by reservation of public lands, also reserve such appurtenant unappropriated waters as are required to accomplish the purposes for which the federal reservation was created", it is necessary to construe the 1952 Proclamation as impliedly reserving all underground water from an area 4500 square miles in extent in order to protect the pupfish.

Yet that is the inevitable consequence of the government's contentions here, which read into the text of that Proclamation an "intent" to protect living species that simply cannot be gathered from its words, which further reads into that text a concern for endangered species that was never authoritatively expressed until

many, many years afterwards, and which reads out of that text the legal climate and the governing law then in effect and then understood to be in effect when the instrument in question was promulgated.

The Cappaerts do not need to invoke ebullient forensic exaggerations. It is unnecessary for them to stress the extent of the 4500 square mile aquifer that feeds underground water into Devil's Hole; it is amply sufficient for them to concentrate on the 21 sections on which the decree approved below limits their own pumping (Pet. App. No. 74-1340, p. xx). That is still an area more than three hundred times larger than the 40-acre tract that was alone reserved by the 1952 Proclamation.

Consequently, regardless of the full acreage actually affected by the ruling below, the vital point here is that no one knew in 1952, or could know then, just how far from Devil's Hole pumping of underground water would need to be limited in order to maintain the then water level therein. Indeed, as late as 1971, the government's expert hydrological witness incorrectly estimated the effect on that water level of pumping from two specified wells on the Cappaerts' farm; see full references at Capp. Br. 17-18.

In short, not even a highly qualified expert can predict with even reasonable certainty just what is involved in terms of scope and distance in the government's present claim to impliedly reserved water rights. It is that circumstance which raises such an ominous specter, pointed out to this Court by no less than eleven States who see their own future existence endangered thereby (Br. A. C. of Arizona and ten other States, p. 37):

> "Future federal water reservation of unlimited magnitudes would seriously undermine, if not eliminate,

> state water planning in many areas. Only if the claims of the Federal government are reasonably foreseeable under an equitable legal system, is it possible for State water planners to provide adequate water programs for the future that will encourage continued development of western lands public policy would seem to require at least this."

At the risk of some repetition, but in conformity with Mr. Justice Holmes' too little remembered comment that "we need education in the obvious more than investigation of the obscure" ("Law and the Court" in *Collected Legal Papers* [1921] 291, 292-293), the Cappaerts emphasize that the 1952 Proclamation relies for its authority only on the 1906 act for the preservation of American antiquities.

That measure by the very words of its authorization for reserving parcels of land, specifically adds that "the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected" (Sec. 2, 16 U.S.C. §431; Pet. App. D1-D2).

The House Report on the measure emphasized the limited nature of the small reservations that it authorized (H. R. Rep. No. 2224, 59th Cong., 1st sess., p. 1; italics added):

> "There are scattered throughout the Southwest quite a large number of very interesting ruins. Many of these ruins are upon the public lands, and most of them are upon lands of but little present value. *The bill proposes to create small reservations reserving only so much land as may be absolutely necessary for the preservation of these interesting relics of prehistoric times.*"

And, on the House floor, the member in charge of the bill emphasized (40 Cong. Rec. 7888) that "The bill provides that it shall be the smallest area necessary for the care and maintenance of the objects to be preserved."

It bears renewed emphasis that the 1906 Act authorized the reservation of "parcels of land", and that it said absolutely nothing about reserved waters. Here again, this should not occasion surprise. Because, very obviously, preservation of the prehistoric ruins and artifacts that were the only expressed concern of Congress did not require water rights for their preservation.

One may therefore ask, Can it ever be supposed for a moment that the sponsors of the Act for the preservation of American antiquities even so much as imagined that their measure would some day be perverted to authorize what the courts below have approved here, the withdrawal of all underground water for many miles around to safeguard, not artifacts, not interesting prehistoric ruins, but living creatures in an underground pool that was alone reserved to the extent of a mere 40 acres?

To ask that question is of course to answer it.

Thus to the matters already read into the 1952 Proclamation by the government in this case there must now be added another, the virtually unlimited extent of the water withdrawal that it rests upon authority of the 1906 Act.

Obviously that Proclamation cannot properly be subjected to such cumulative distortion. Yet without each of four distinct rewritings—(1) inclusion of an unexpressed intent to protect living creatures; (2) retroac-

tive resort to public purposes never articulated until passage of legislation many years later; (3) disregard of the rule of law prevailing when it was promulgated, under which the United States owned no non-navigable water that it could reserve; and (4) expansible authority to reserve far more extensive tracts than the statute permits—without the aggregate of those four rewritings of the 1952 Proclamation, it is impossible to reach the result that the court below approved and for which the government is contending here.

That is why the Cappaerts say that the court below was wrong in deciding as it did, that the government's arguments in support of the judgment below are patently untenable, and that reversal is in consequence imperatively required.

II.

INASMUCH AS THE UNITED STATES DID NOT COMPLY WITH STATE PROCEDURES FOR ESTABLISHING THE EXISTENCE OF ITS WATER RIGHTS, AND DID NOT APPEAL FROM THE STATE ENGINEER'S GRANT OF PUMPING PERMITS TO THE CAPPAERTS, IT IS BARRED FROM ASSERTING THOSE IDENTICAL CLAIMS TO WATER IN A LATER INDEPENDENT ACTION.

The Cappaerts do not feel it necessary to argue at length under the foregoing heading.

First, the issue arising out of the participation of the United States in the proceedings before the Nevada State Engineer, its failure to appeal his decision, and its subsequent resort to an independent action in another forum, is, very definitely, in the present case.

The short answer to the government's efforts (U.S. Br. 42-43) to invoke the formalities of pleading in

an effort to spell out a waiver is that this issue was dealt with at length, and determined by, the court below (Pet. App. A13-A16). It was therefore available for review here.

The State of Nevada, intervenor below and petitioner here in No. 74-1304, presented that issue as the second of its two questions (Pet. No. 74-1304, p. 3):

> "2. Whether the federal government must comply with state procedure for establishing the existence and scope of any water right, implied reserved right or otherwise, which it desires to assert to the water beneath reserved and non-reserved land."

Within that formulation there was "fairly comprised" (Supreme Court Rules 23(1)(c) and 40(1)(d)(1)) the issue argued here as Point II by the State of Nevada (Nev. Br. 34-47), as Point IV by the Cappaerts (Capp. Br. 80-89), and as Point IV by the government (U.S. Br. 41-49), and that is so whatever terminology may be employed in doing so, whether *res judicata,* collateral estoppel, exclusivity of administrative remedy, or otherwise.

True, since the Cappaerts did not raise that issue in their own petition for certiorari, they would not have been free without more to raise it as an original proposition. But since it was squarely raised in Nevada's petition, which sought review of the identical judgment of which the Cappaerts complained in No. 74-1107, they consider themselves fully justified—and fully authorized—to deal with it at length themselves. It is an issue that is in the case, and it is an issue that has been properly brought here by another party to the same cause who complains of the same judgment.

Second, regardless of the label used to characterize the rule of law relied upon to show that the court below erred, that rule can be very succinctly stated: Is the United States bound by the results of a proceeding in which it participated fully?

But for the government's arguments here, the Cappaerts would have thought that this question called for a resounding affirmative answer. See *Drummond v. United States,* 324 U.S. 316, 318, where this Court said:

> "If the United States in fact employs counsel to represent its interests in a litigation or otherwise activity aids in its conduct, it is properly enough deemed to be a party and not a stranger to the litigation and bound by its results. Compare *United States v. Candelaria,* 271 U.S. 432; 16 F.2d 559, with *Logan v. United States,* 58 F.2d 697. But to bind the United States when is it not formally a party it must have a laboring oar in a controversy."

The United States undoubtedly had a laboring oar in the controversy before the State Engineer as to the right of the Cappaerts to pump underground water from wells on their farm. Indeed, its representatives actively participated in that controversy, presenting every issue of law and fact that is now involved here.

1. They filed formal protests under NRS 533.365 with the Nevada State Engineer alleging that the proposed pumping would endanger the Devil's Hole pupfish (A. 228-230, 269-280).

2. At the hearing, held under NRS 533.365, the representative of the United States invoked the 1952 Proclamation and entered it in evidence as an exhibit (A. 287, 306, 308).

3. He spoke at length about the situation of the pupfish (A. 286-288).

4. He cross-examined both of the Cappaerts' witnesses (Nev. St. Eng. Tr. 21-51).

5. He offered a witness on behalf of the National Park Service, as protestant (Nev. St. Eng. Tr. 51-65).

6. He then summed up the case in support of the Park Service's protests (A. 297-298).

It would be difficult even to imagine more actively aiding in the conduct of a litigation, or exerting any more labor on a laboring oar. At the commencement of the hearing, after setting forth the background of the proceedings, the State Engineer stated, "It is customary, and I have not heard objections, that the Protestant proceed first, then the Applicant proceeds" (A. 286). The government solicitor then proceeded with the government's protest (A. 286). At the conclusion of the hearing, the State Engineer, after first giving his reasons, ruled "that the protest to the applications that are the subject of this hearing are overruled" (A. 312). He then advised the government solicitor of the statutory appeal time (A. 313). Consequently the United States was bound by the result reached, and, having failed to appeal under the law providing for review of the State Engineer's determinations, was not free thereafter to seek a different result in another forum.

The Cappaerts remain of the view that *United States v. Silliman,* 167 F.2d 607 (C.A. 3), certiorari denied, 335 U.S. 825, supports the foregoing conclusion; that decision is explained in detail at Capp. Br. 86-89.

In this instance, also, the *Silliman* case is a controlling decision which the government answers with its ultimate accolade—perfect silence.

By way of implied rebuttal, it quotes (U.S. Br. 48) from *United States v. California* 332 U.S. 19, 40, the following:

> "The Government, which holds its interests here as elsewhere in trust for all the people, is not to be deprived of those interests by the ordinary court rules designed particularly for private disputes over individually owned pieces of property; and officers who have no authority at all to dispose of Government property cannot by their conduct cause the Government to lose its valuable rights by their acquiescence, laches, or failure to act."

If the foregoing passage has any relevance here, a matter admitting of more than a little doubt, then it was equally relevant, and equally applicable, to the result reached by the Third Circuit in the *Silliman* case, 167 F.2d 607. Perhaps it was for that reason that the Solicitor General sought certiorari to review the result. But this Court denied the writ. 335 U.S. 825.

Without further discussion, the Cappaerts content themselves with underscoring what eleven States of the Union have said on the precise issue in their brief *amici curiae* in the present case (Br. A. C. of Arizona and 10 other States, pp. 40-42), and, extending those comments to the margin so as to make them part of the present reply brief's text, adopt them as their own:

"It is submitted that under the above principles the United States should have been barred from asserting in this case reserved rights claims determined in the prior state administrative proceeding. Prior to the administrative hearing, the United States filed written protests on the basis that the pumping of the wells

would adversely affect the water in Devil's Hole and thus result in harm to the fish living in the pool. This objection was reiterated in detail at the hearing before the State Engineer. President Truman's proclamation and expert testimony on the hydrology of the Ash Meadow area were introduced by the government. The nature, value and extent of the competing interest of the federal government and adjacent land owners was thoroughly argued during the hearing. As the transcript reveals, the issue of the lowering of the water in Devil's Hole and the effect on the fish therein was thoroughly considered. Although the federal government did not specifically assert an implied reserved water right, the existence of a federal water right was considered, but it was concluded that one did not exist. After the State Engineer rendered his decision granting the applications, all parties were informed [A. 313] that they had thirty days in which to appeal according to Nevada's statutory procedures. These procedures have been held by the Supreme Court of Nevada to be the exclusive remedy for those aggrieved by a decision of the State Engineer, *Jahn v. Sixth Judicial District Court In and For Humboldt County, et al.*, 73 P.2d 499 (Nev. 1937) and by a federal court to fully comply with due process requirements, in that they provided any aggrieved party a full opportunity to be heard before a court of competent jurisdiction with right of appeal to the Supreme Court. *Humboldt Lovelock Irrigation Light & Power Co. v. Smith*, 25 F.Supp. 571 (D. Nev. 1930). The United States did not appeal. Approximately six months later the government filed its complaint in this case in the Federal District Court. Allowing the government to thus initiate a judicial action six months subsequent to the administrative deter-

mination and after a substantial investment by the individual defendant in reliance upon the administrative decision is to clearly violate the principles of collateral estoppel and to make meaningless the administrative order of the State Engineer and Nevada's statutory procedures to appeal the order.

"From the earliest times, water law has been state law. The states have systems of water law and procedures adapted to water supply, climate, and demand. The United States does not. The initial forum, therefore, to achieve coordination and accommodation of federal uses with state and private uses is properly the state court, or in the case of Nevada, the administrative adjudication procedure which substitutes in the first instance in place of a court, the State Engineer, expert in the area of water use, and from whose order an aggrieved party may appeal to the state courts. The opinion of this Court in the *Eagle County* case [401 U.S. 520], supports this position. Furthermore, this Court there set forth the proper method by which the federal government could obtain review of the state determinations as to its reserved rights claims:

> " '*All such questions*, including the volume and scope of a particular reserved right, are federal questions, which, *if preserved*, can be reviewed here after *final* judgment by a Colorado Court.' (Emphasis added).

"The logical meaning of 'if preserved' is that the United States must pursue state appeal procedures in order to 'preserve' its claims for review in federal court. Further emphasis is placed on state review when the Court referred to 'final judgment'. The implication is that the United States must pursue protection of its rights in State Courts, and must pursue its remedy to final State Court judgment *before* seeking Federal Court review."

CONCLUSION.

The Cappaerts are not insensible to the considerations involved in protecting pupfish from extinction. But if the public interest requires that the Cappaerts' farm be taken in order to provide such protection, then resort must be had to the statutes that authorize such taking by condemnation with resultant compensation (see the provisions listed at Capp. Br. 13-15), in order that, through taxation, the burden of what is taken in the public interest may be paid for by the public. *Louisville Bank v. Radford,* 295 U.S. 535, 602.

Accordingly, for the foregoing additional reasons, the judgment below should be reversed, with directions to dismiss the complaint.

Respectfully submitted.

SAMUEL S. LIONEL,
Counsel for the Petitioners.

NOVEMBER 1975.

Supreme Court, U. S.
FILED
DEC 5 1975

In the Supreme Court
OF THE
United States

OCTOBER TERM, 1975

Nos. 74-1107
74-1304

UNITED STATES OF AMERICA
Plaintiff and Appellee,

vs.

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT,
B. L. BARNETT, individuals, and
SPRING MEADOWS RANCH,
Defendants and Appellants,
and
STATE OF NEVADA, ex rel. ROLAND D. WESTERGARD,
State Engineer,
Intervenor and Appellant.

REPLY BRIEF FOR INTERVENOR-APPELLANT STATE OF NEVADA

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STATE OF NEVADA, ex rel. ROLAND D. WESTERGARD,
State Engineer,
Intervenor and Appellant.

REPLY BRIEF FOR INTERVENOR-APPELLANT STATE OF NEVADA

This reply brief is submitted to supplement the reply brief of petitioners, Cappaerts, by briefly responding to some of the arguments raised by the United States Government which were not specifically considered by the reply of petitioners, Cappaerts.

I.

THE UNITED STATES GOVERNMENT SHOULD BE REQUIRED TO ESTABLISH THE EXISTENCE OF AN IMPLIED WATER RIGHT IN ACCORDANCE WITH STATE LAW.

In its brief the Government first argues in substance that the Federal Government pursuant to the property clause of the United States Constitution has the power to withdraw public land and, therefore, it automatically acquires water rights on said reserved land. (U.S. Br., 20) This argument assumes that because the Federal Government has the right to reserve public land it also has the right to reserve water on the public land and upon adjacent nonpublic land. This position allows the Government to simply step right over the question of who shall determine the existence of an implied water right by saying that since the water right belongs to the United States Government and always has only the United States Government can make the determination as to its existence.

This position completely ignores the fact that Congress as interpreted by this Court specifically stated that water rights on public lands are separate from the property interest, and the existence thereof shall be determined separately under state law. *Act of July 26, 1866,* Ch. 262, §9; 14 Stat. 253 (now Act of July 10, 1952, Ch. 651, §208(A-2), 66 Stat. 560, 43 U.S.C. §661 (1938)); *Desert Land Act of 1877,* 19 Stat. 377, 43 U.S.C. §321 (1958); *Ickes v. Fox* 300 U.S. 82; *California Oregon Power Co. v. Beaver Portland Cement Co.,* 295 U.S. 142 (1935); *Federal Power Commission v. Oregon,* 349 U.S. 435, 448 (1955). The Federal Government cannot reserve something it did not own in the first place. Very possibly the Federal

Government might be entitled to a water right for use on the reserved land, but since it is an "implied" right, the existence of such a right must be determined by examining the circumstances surrounding the reservation of the land.

As discussed by Nevada in its opening brief the doctrine of impliedly reserved water rights as originally propounded in *Winters v. U. S.,* 207 U.S. 564 (1908) was not created based upon a right, but upon need dictated by the circumstances. (Nev. Br., 14-15) The Government brief supports this conclusion when it states that the test for determining the existence of a federal implied water right is the *need* for which a reservation of land is made. (U.S. Br., 20-21) The acceptance of the "need theory" as opposed to the "right theory" as the basis for the existence of an implied water right is then quite compatible with the early holdings of this Court that all water rights were severed from the land and are to be determined in accordance with state law.

The state pursuant to its existing procedures can determine in each instance whether the circumstances surrounding the federal reservation of land is such as to justify the creation of an implied water right in the United States Government. The state is quite capable of understanding and applying the implied water right theory when appropriate. Allowing the state to make that determination is not only consistent with the position that water rights on public land must be determined in accordance with state procedure, but it also provides for an experienced and knowledgeable forum for asserting and protecting the United States Government's need to use water for its reserved lands.

The Government does no have to necessarily obtain an appropriative right to have a water right as is suggested in its brief. (U.S. Br., 23-24) As set forth in petitioner's opening brief, the State Engineer by virtue of the "public interest" provisions of Nevada's water statutes can recognize the existence of such an implied right and refuse any other applications on such basis. (Nev. Br., 41)

However, the Government maintains that state procedures are not adequate for it, even if it is for all other users, because it should have the right to unilaterally reserve water for itself for unknown, speculative future uses regardless of whether the water could be presently utilized by other users. (U.S. Br., 24)

Nevada agrees with the Government that the various Federal Land Acts do not bar the application of the implied water right theory to nonnavigable waters. However, those same Federal Land Acts also require that the application of the implied right doctrine be done, at least initially, within the frame-work of the state law. To accept the Government's position would be to say that the state procedures are good enough for private citizens, but not good enough for the United States Government.

The conclusion of the State of Nevada that the decision in *Federal Power Commission v. Oregon* (*Pelton Dam*) was based upon an expressed intent rather than an implied intent of Congress and the application of the federal supremacy theory is perfectly compatible with the position of petitioner that the Federal Land Acts separated the land and water interests on public land. "Need" as expressed in the federal legislation involved in the *Pelton Dam* case simply took precedent over the need of the state to pre-

serve the fish. The Government apparently does not disagree with this conclusion as it made no reference one way or the other to petitioner's analysis of this particular case.

II.

THE DEFENSE OF RES JUDICATA SHOULD BE APPLIED TO PRECLUDE THIS ACTION BY THE UNITED STATES

In presenting its opposition to Nevada's argument on *res judicata* the Government attempts to paint the proceeding before the Nevada State Engineer as a friendly inquiry of no real significance. (U.S. Br., 41-49) Nothing could be further from the truth.

Petitioner, State of Nevada, has set forth in its opening brief in detail the extent the Government went to in the hearing to obtain an adverse ruling to the applicants for well water. (Nev. Br., 43-44) It is quite clear from a reading of the transcript that the Government protested the granting of the well permits to petitioners, Cappaerts, as vigorously as they were apparently able. As has already been cited, the Government's case included the presentation into the record of a detailed, lengthy and well-prepared statement discussing all aspects of Devil's Hole and the effect of the adjacent pumping (Appendix A, pp. i-iii), cross examination of both witnesses presented by the applicants and presentation of its own expert witness. Additionally, and very importantly, prior to the Engineer making a decision, President Truman's Proclamation of 1952, which the Government now claims as its basis for its implied water right, was introduced into evidence by the

Government. (Appendix A, p. iv) That the hearing officer considered the existence of a federal water right based upon the evidence submitted by the Government is clearly supported by the hearing officer's reference to the fact that he believed there were no water rights in Devil's Hole. (Appendix A, p. v) (U.S. Br., 4 note 43) The Government must have recognized that the issue of a federal water right in Devil's Hole was an issue, but failed to present sufficient evidence or argument to establish it and, thus, such a right was rejected.

To state as the Government has done (U.S. Br., 47) that the National Park Service did not litigate the question of its federal water right in Devil's Hole is to completely ignore what actually occurred at the hearing.

The basis for the existence of a federal water right may not have been presented as well as it could have been, but the Government counsel's failure to articulate the Government's claim for water rights in Devil's Hole does not alter the fact that the Government *had the opportunity,* even if not taken advantage of. Certainly, the same argument and facts now urged in the present case for establishment of an implied water right existed at the time of the administrative hearing and could have been urged to the same extent. Failure to properly do so does not allow the Government to now argue that it really did not mean to litigate the issue when in fact it did.

Petitioner, State of Nevada, is confident that if the State Engineer had rejected the application for the appropriation or postponed its decision the Government would not have ignored the decision and said, "Well, that wasn't really a proper hearing, so we better go to court." The

issue considered and determined in the administrative hearing was exactly the same issue that is before this Court; therefore, the defense of *res judicata* is applicable.

The Government further argues that Nevada cannot raise the issue of *res judicata* because it was not a party to the administrative proceedings before the Nevada State Engineer and, therefore, not in privity to the Cappaerts. (U.S. Br., 42-43) Nevada Revised Statutes 533.030 and 534.020 recite that all water, ground or surface, belongs to the public, and must be administered by the State Engineer. (Nev. Br., Appendix A, ii and v) This being the case it seems obvious that the State of Nevada is a real party in interest to any water hearing proceedings conducted by the State Engineer. If not a party in any other sense, at minimum it is the trustee of the water for the general public. There can be no determination of water rights without the State of Nevada being involved. Therefore, clearly Nevada is a party for purposes of *res judicata.*

The Government also makes some attempt to argue that there is a substantial difference between what it calls an adjudicatory procedure and a hearing on an application for appropriation. It argues that a hearing on an application for appropriation does not constitute a true adjudication of competing water rights so a decision in such a hearing is not in any way binding. (U.S. Br., 44-45) The only significant difference between the two methods of determining water rights is the way in which the question arises. Nevada Revised Statute 533.090 allows a water user to obtain a determination of relative water rights on a stream by filing a petition requesting such a determi-

nation. It is significant to note at this time that N.R.S. 533.090 cited by the Government for adjudication of water rights pertains only to stream water, and there is no comparable provision in N.R.S. 534 as concerns ground water. Provisions of N.R.S. 534 refer back to Chapter 533 of Nevada Revised Statutes pertaining only to the appropriation of water.

In any event N.R.S. 533.325, et seq., provides for the same result reached in an adjudicatory procedure by means of a hearing on an application for appropriation. Hearing procedures are very similar. Under the "appropriation method" of determining water rights what the Government argued is not a real determination of competing water rights. N.R.S. 533.365 provides in pertinent part, ". . . 3. The State Engineer shall duly consider the protest, and may, in his discretion, hold hearings and require the filing of such evidence as he may deem necessary to a *full understanding of the rights involved . . .*". (Emphasis added) What would be the necessity of considering evidence on the "rights involved" if a decision on competing rights could not be made. Of course, a protestant must establish an existing right before it can be used as a basis for affecting the Engineer's decision on an application for appropriation. If a protestant can establish the existence of a water right and that the water right will be adversely affected by a new appropriation, the application would be denied or limited by the State Engineer. In fact, that is exactly the reasoning the Engineer followed in the present case in that he first determined that there was no federal right in Devil's Hole and then determined that it could not therefore be affected. (Appendix A, p. v)

It is the contention of Nevada that any differences are in procedure only, not in result. Either proceeding can become grounds for a *res judicata* defense.

Further, the Government's argument in this regard seems to conclude that if a party, such as the United States Government, wants to obtain an adjudication of its water rights it must file an application with the State Engineer requesting such a determination, and such a procedure could be *res judicata*. This position goes to the very crux of Nevada's argument. A determination of the existence of a water right, whether it be appropriative or implied, must be made initially by the State of Nevada. The Government seems to concede this in its argument on this point. Despite the Government's shotgun attempt to argue that the issue of the existence of a federal water right was not considered and decided in the administrative hearing, the fact of the matter is that it was and, therefore, precludes the present action.

Dated, Carson City, Nevada,
December 3, 1975.

Respectfully submitted,
GEORGE V. ALLISON,
PETER D. LAXALT,
Special Deputy Attorneys General,
By GEORGE V. ALLISON,
Attorneys for Intervenor and Appellant, State of Nevada.

(Appendix A Follows)

APPENDIX

Appendix A

PORTION OF ADMINISTRATIVE HEARING

[p. 18] The U. S. Department of the Interior recommends most strongly to the Nevada State Engineer that he reject outright the pending applications of Spring Meadows, Inc., and any other pending applications, or postpone any action thereon until the previously mentioned studies are completed and analyzed.

That concludes my statement. Thank you.

MR. WILSON: A point of inquiry, is this statement that was read, is it the Engineer's position that the factual statements presented in the body of this report are to be accepted as evidence on the part of the Protestant, or are they like any statement, if they are not evidence of the facts, they are not considered. For example, on page six and seven there are certain—and in other parts of the statement, there are in effect accounts of statements made by other parties of source, hydrological and geological conclusions with respect to the effect the granting of these applications would have on the subject Basin.

MR. AHO: It is my request that those statements are to be taken as evidence of the fact. You do have copies of Dr. Maxey's report and you also have, of course, your own information in your own office to which I referred, the well drilling logs, and you also are well aware that the United States Geological—the individual's name escapes me for the moment—is working closely with your office in a water study, [p. 19] and I think all of the information to date which I have alluded to in my report is available and in reports in your own office, if I am not mistaken.

MR. WILSON: This material is a matter of record, that is right; but my point being there should be an op-

portunity to question the material that is presented here, at least to explore it in detail; that is my feeling, at least as far as this hearing is concerned.

MR. WESTERGARD: Well, the statement, of course, that was presented will be included in the record and the reports that are mentioned will also be evaluated.

In other words, the reports mentioned in the statement will be a part of the record.

MR. AHO: If I may make a further statement, I would like to state for the record that these reports tend mostly to indicate the need for further studies. These reports indicate that the precise data is not available at the present time and that is why we are urging most strongly that you withhold action until the other reports are completed which will be of a highly technical and acceptable nature.

MR. WILSON: I had another inquiry and that is, also, to inquire, insofar as the Engineer's knowledge and records are concerned referred to in the statement appearing on page 10 which asserts that these large withdrawals may, in fact, exceed the annual recharge of the water in the Basin with its [p. 20] dire consequences to the entire underground water supply in the Basin. It is my general understanding that the actual withdrawal of water at the present time is within and does not exceed the annual recharge, if my understanding is correct.

MR. WESTERGARD: This material is not of record in this hearing, Mr. Wilson, but there is a certain amount of information on this report, the State Engineer's report, and that has been and will be considered.

MR. WILSON: Now, with respect to the factual situation regarding the use of water exceeding the annual recharge, should we have witnesses for that or do the words

"may, in fact, exceed the annual recharge—". The point of my inquiry is to ask, as a factual matter, whether or not the use of water at the present time, so far as your information is concerned, does in fact exceed the annual recharge or whether the use of water at this time is within the annual recharge. Mr. Aho's statements says "may," and I am simply raising that question.

MR. AHO: The reason this statement was made is for the purpose of future withdrawals, it is not whether the present withdrawal does in fact exceed or did ever exceed the annual recharge, but further applications may exceed that recharge and that is the primary purpose of the study that is being made at the present time.

MR. WILSON: Well, I am going to waive my opening

[p. 76] have no basis for that statement, and in that case, I suggest that we are not interfering with the government's water rights because the government's witness himself stated that the lowering of the water level at any point of diversion is not unreasonable.

Now, that was his precise statement and that is the statutory requirement with respect to the appropriation of water from an underground well.

Now, if the Engineer please, I am going to ask that the applications be granted, not in spite of a study, really, but one, because we need to have them granted and hopefully in granting these applications it will give the Interior Department a motivation to move and to set down with us and discuss the problems, and that way will realize that they cannot just sit by until it goes away or Spring Meadows picks up the full bill for it.

I ask that the applications be granted.

MR. AHO: May I reply briefly?

MR. WESTERGARD: Yes.

MR. AHO: He questions my statement that Devil's Hole was added to the Death Valley Monument in 1952, primarily to protect the pupfish. To counter that allegation I would like to offer a copy of President Harry S. Truman's Proclamation No. 2961 establishing Devil's Hole as a part of the Death Valley Monument and the State Engineer can draw his own

[p. 82] decision soon. You know what that decision has to be and for that reason I am going to overrule the request of the government through Mr. Aho for an extension of time in making a determination on this matter. In this vein I do feel that through the information we have available in our own records and through the expert testimony that was given here today and through the arguments, very frankly, there is no question in my mind what decision has to be made, and that again is my determination. And the reason for my determination is that further postponement of action is not in order.

There has been only brief reference, I believe it was by Mr. Wilson, he referred to an assertion of a federal water right. There is no record of a water right on Devil's Hole. I mention that because this is one of the criteria that the State Engineer must consider in making a decision, the possible effect on existing water rights. There are no water rights on Devil's Hole, so we will not pursue that any further. The statute, as has been pointed out several times this morning, provides than any appropriator must expect a reasonable lowering of the water table and I think the testimony, the expert testimony was to the fact that there has not been an unreasonable lowering of the water table. Evidence to the contrary has not been submitted by the government so the first criteria, then, effect on existing water rights, it is my ruling that the evidence before us in the case that

Supreme Court, U. S
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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1975

No. 74-1304

STATE OF NEVADA, ex. rel. ROLAND D. WESTERGARD
State Engineer, *Petitioner*

VS.

UNITED STATES OF AMERICA, *Respondent*

No. 74-1107

FRANCIS LEO CAPPAERT, MARILYN I. CAPPAERT, et al.,
Petitioners

VS.

UNITED STATES OF AMERICA, *Respondent*

BRIEF OF AMICI CURIAE IN SUPPORT OF PETITIONERS

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF OF AMICI CURIAE

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BRIEF OF AMICI CURIAE

I. INTEREST OF AMICI

The Western States named herein as *amici curiae* all have systems for the administration and the determination of water rights. Due in significant part to the security afforded by water rights granted under

these systems, the West has been transformed into an economically productive and socially inhabitable region. R. J. Moses, Federal-State Water Problems, 47 *Denver L. J.* 194 (1970). As the Public Land Law Review Commission stated in its report published in 1970:

> "In nearly one hundred years of development, state water law has achieved a reasonable certainty of results which has permitted substantial public and private development in the west. While sometimes necessarily complex, the state administrative and judicial procedures have provided a means to determine security of rights to the use of water." Public Land Law Review Commission, *One Third of the Nation's Land* 142 (1970).

However, unquantified and indefinite federal claims to unappropriated water for use on federal reservations under the so-called "implied reservation doctrine," have served to becloud the status of state created water rights so that the continued orderly planning and development of western resources is threatened.

The reservation doctrine is based on the premise that the Western States did not acquire title to the public lands when they were admitted to the Union and, therefore, as to lands which have not been disposed of by the United States, the federal government is still the owner. Therefore, the federal government claims a right to dispose and regulate the use of the retained public domain lands and waters

pursuant to the Property Clause of the Constitution. U. S. Const. Art. IV § 3(2). In exercising this power, the government may dispose of the land and water together or the land and water separately. The federal government did not dispose of its ownership rights to such waters by the Act of July 26, 1866, 14 Stat. 253, 43 U.S.C. 661 (1938), the Act of July 9, 1870, 16 Stat. 217, 43 U.S.C. 661 (1938), or the Desert Land Act of March 3, 1877, 19 Stat. 377, 43 U.S.C. 321, 323 (1958), but merely chose to thereby defer control over the western waters to the states. If the United States withdraws a portion of the public lands for a federal purpose and if at the same time the government intends to reserve unappropriated water for that purpose, then the states' authority to control this water is revoked. In the words of one leading authority in explaining the doctrine:

> "An appropriator complying with state law cannot obtain title to it and his right applies only to the surplus water, if any, remaining after the federal right is satisfied. The reserved water so withheld is the property of the United States, and the government exercising its proprietary powers and rights can put it to use without complying with state law. The block of water that will ultimately be needed on the reserved lands may be used in the meantime by an appropriator who complies with state law, but if that water is later put to use by the government, it takes no property from the temporary user and owes him no compensation." F. J. Trelease, *Federal-State*

Relations in Water Law 114 (1973).

Thus the doctrine poses the threat that new federal uses will be given turn-of-the-century priorities that can take water from currently valuable uses established pursuant to state law without paying any compensation. The concern with which the *amici* as Western States view this threat is obvious by the fact that as a result of federal reservations and withdrawals from those lands open to public settlement, as of June 30, 1963, approximately 40% of the total acreage within those states (with the exception of North and South Dakota) included in the Desert Land Act is under the responsibility of federal agencies: a total of 360,789,045 acres in the 11 contiguous Western States. Note, *Western Water and the Reservation Theory — The Need For a Water Rights Settlement Act*, 26 Mont. L. Rev. 204-5 (1965). Approximately 61% of the total surface water runoff is derived from federally reserved lands. Public Land Law Review Commission, *One-Third of the Nation's Land* 141 (1970). It should be thus apparent that the uncertainties generated by the doctrine with respect to state granted water rights have adversely affected water resources planning and development. As the National Water Commission concluded in 1973:

> "...the reservation doctrine frustrates sound planning in the public and private sectors of the economy. The prospective claims of the government are highly uncertain as to time, manner and quantity of use. Consequently, no planner or investor can establish a meaningful water budget. It is impossible to prove how many non-federal projects were not undertaken because of these uncertainties, but statements to the Commission reveal profound concern on the part of state officials." National Water Commission, *Water Policies for the Future* 467 (1973).

The concern of state officials over the potential implications of the reservation doctrine has further increased in recent years due to the national thrust to be more energy self-sufficient. Already in the energy producing western states, competition for available water supplies is intense. The farmer and rancher must compete not only with industry, but now, if the lower court's decision is affirmed, with the federal government as well. Moreover, it takes no great imagination to anticipate that federal reservations of water, under the broad construction of the doctrine proposed by government attorneys, will one day be asserted to extend to federal mineral reservations in those states where state and federal policy may not conform. If the government's claims were upheld, the effect upon the administration and the economy of the states where there is extensive federal mineral ownership would be disastrous. The following excerpt from Part I of the section entitled "Legal Parameters" of the "Report on Water for Energy in the Northern Great Plains Area," completed in January of 1975 by the Department of Interior Water and Energy Management Team (GPO 857-510), gives some credence to the apprehension of the western states:

> "As with other areas of the country, energy development in Northern Great Plains is dependent

upon the availability of and the legal right to utilize water. Water is essential to all phases of energy development from mining and revegetation of mined lands to actual energy production, gasification or other uses. Historically, developers of energy and other mineral resources have provided their own water supplies for this purpose. The Government, in the past, has not sought to supply water rights to mineral or other energy resource lessees, claimants, permittees, etc. Accordingly, it is anticipated that non-Federal entities obtaining leases, permits or other rights to develop Federal energy resources must obtain the water necessary for development of such resources under State procedures. Exceptions to this will be instances where Federal water projects have water available for marketing for energy resource development purposes . . . or cases where other Federal rights are involved."

That such statements evoke deep concern on the part of state officials is due in part to the uncertain parameters of the doctrine in the case law. There have been relatively few cases dealing with the doctrine and many issues concerning the scope of the doctrine remain unresolved. Thus, according to the exhaustive legal study prepared for the Public Land Law Review Commission, the following issues, among other, remain undecided:

> "(1) the detailed nature of the showing required to establish an implied intent to reserve waters upon the creation of a reservation.

> (2) The nature and scope of the permissible purposes for the use of water that may be deemed to be within the implied intent on establishment of the reservation;" C. Wheatley & C. Corker, *Study of the Development, Management, and Use of Water Resources on the Public Lands* 136 (1969).

To the study's list should be added the question of whether the reservation doctrine applies to groundwater as well as surface water, and if so does the reservation doctrine apply only to groundwater under the reserved lands or does it encompass groundwater under adjoining lands. Note, *Federally Reserved Rights to Underground Water — A Rising Question in the Arid West*, 1973 Utah L. Rev. 43-54.

No cases have been decided since the publication of the Public Land Law Review Commission study in 1969 which dealt with the above questions. However, each of the above issues is involved in the Ninth Circuit's decision. Despite expressed Congressional intentions and prior executive branch determinations to the contrary, the Ninth Circuit concluded that Congress impliedly intended to vest the President with the authority to reserve water as distinct from land under the Act for the Preservation of American Antiquities (Act of June 8, 1906, Ch. 3060, 34 Stat. 225, now 16 U.S.C. § § 431-433) and furthermore, that one of the permissible purposes for the use of water for withdrawals under this Act is the preservation of an endangered species of desert pupfish. The court also held that the reservation doctrine applies to ground-

water and that the President intended to reserve sufficient groundwater in Devil's Hole to preserve the pupfish. Therefore, the government was entitled to enjoin an adjacent landowner from pumping water underneath his land pursuant to subsequently granted state well permits to the extent that such pumping lowered the level of the water in the Hole and thus jeopardized the pupfish. Finally, the court in essence allowed the federal government to ignore with impunity determinations as to its reserved rights claims made in a state administrative proceeding in which it participated and from which it failed to appeal.

By thus resolving the above issues in favor of the government, the Ninth Circuit court would significantly expand the extent to which the reservation doctrine may be used to preempt state control over water resources. The *amici* thus feel compelled to advise this Court of their position in opposition to the Ninth Circuit decision.

II. QUESTION PRESENTED

This brief is confined to the following issues which the *amici* consider to be the most crucial to their interests:

(1) Whether Congress intended under the Act for the Preservation of American Antiquities to vest the President with authoriy to reserve water for the purpose of protecting an endangered species.

(2) Whether the federal government can invoke the "reservation doctrine" to assert superior rights to groundwater so as to enjoin a landowner, adjacent

to the federal lands, from pumping water from beneath his land pursuant to state granted well permits.

(3) Whether the federal government should be barred under the principles of *res judicata* from seeking to adjudicate in a subsequent judicial action issues decided in an administrative proceeding in which it participated to determine a water rights application before the State Engineer from whose order the government failed to appeal.

III. SUMMARY OF ARGUMENT

The application of the reservation doctrine is dependent on the assumption that the government intended to reserve unappropriated water for the reserved land. With respect to non-Indian lands, if this intention is not expressed in the legislation authorizing the withdrawals, or if it is not clearly implied from the authorizing legislation, then the government should not be deemed to have reserved rights. The government rests its reserved rights claims on a proclamation issued by President Truman in 1952 pursuant to the Act for the Preservation of American Antiquities. The text of this Act, its legislative history, and subsequent administrative interpretation, make it clear that that executive had no express or implied authority under the Act to reserve water for the purpose of protecting an endangered species. Therefore, even assuming, arguendo, that President Truman intended to do so, he had no authority under the Act upon which he relied to withdraw water for the preservation of desert pupfish.

There is no firm precedent for the lower court's holding that the reservation doctrine applies to ground-

water so that the government is entitled to enjoin landowners adjacent to the reservation from pumping water underneath their lands pursuant to state granted well permits. Furthermore, the rationale behind the doctrine —the implied intent of the government to reserve water for use on reserved lands—is not applicable in the case of groundwaters whose existence and flow could not have been known at the time of the federal withdrawal of lands from the public domain. Furthermore, so applying the doctrine would significantly impair the efforts of the western states under their groundwater statutes to control the use of groundwater and afford security in its use through state granted permits.

The *Winters* doctrine, arising as it did in a case involving the special trust obligation of the United States to the Indian tribes, when applied to non-Indian reservations is an unwarranted extension of the doctrine and has become productive of extreme confusion in the water law. There is no viable reason why the water rights of such reservations should not stand or fall based upon an equality of right with other users of water. The Federal government is not such a privileged user that it may be excused from compliance with traditional water law concepts. It may exercise its power of condemnation to realize needs not available to it by a fair application of such law. Yet, the result of the lower court's decision in this case permitted the Federal government to pick and choose among favorable elements of prior appropriation doctrine and riparian rights and thereby avoid the equitable burdens placed upon those doctrines by the Western States in

order to assure an equitable sharing of their limited water resources. In the instant case, the government claimed and was granted a priority under prior appropriation doctrine; in another case, it might claim a future use, a riparian concept. It may deny that its reserved right is affected by non-use or inefficient use, or that it is subject to an equitable sharing when insufficient water is available to meet the needs of the reservation. There is no limit to the inconsistent claims which the government may be expected to add to their shopping list as the occasion arises. The result of this hybrid contrivance is to emasculate the salutary principles of Western States water law in contravention of the intent of Congress and public policy.

The United States participated in an earlier state proceeding to determine the individual defendant's application for a well permit to the extent that it should have been barred under the principles of *res judicata* from adjudicating issues in the lower federal court which were decided in the state proceeding. Holding otherwise, as did the Ninth Circuit, allows the government to have a second independent review of its reserved rights claims in disregard of prior determinations under state laws and procedures and contrary to the guidelines set forth by this Court in the *Eagle County* case.

Despite government contentions to the contrary, this case does not involve the survival of the Devil's Hole pupfish. The government has ample alternative means to protect the pupfish without relying on the reservation doctrine to enjoin, without payment of compensation,

adjacent landowners from using their state granted rights.

IV. ARGUMENT

A. ASSUMING, ARGUENDO, THAT HE INTENDED TO DO SO, PRESIDENT TRUMAN DID NOT HAVE AUTHORITY UNDER THE ACT FOR THE PRESERVATION OF AMERICAN ANTIQUITIES TO RESERVE WATERS ON LANDS WITHDRAWN PURSUANT TO THE ACT FOR THE PURPOSE OF PROTECTING AN ENDANGERED SPECIES OF DESERT PUPFISH.

As previously noted, the question of the showing required to establish an implied intent to reserve waters upon the creation of a reservation has not been decided. Nevertheless, government attorneys have consistently advanced a very broad construction of the doctrine's scope to the effect that reservation of all of the unappropriated waters which are appurtenant to the lands is created automatically as a matter of law concomitant with the withdrawal of lands. *E.g.*, Record at 12,440-41, 12,444, *Arizona v. California*, 376 U.S. 340 (1964). Counsel for the United States in its brief before the lower court also advanced this proposition in the following language:

> "In all cases, the test to be applied to determine the existence of federal reserved water rights is whether the previously unappropriated waters are necessary to accomplish the purposes for which the reservation was created."

Thus it is suggested that the mere act of withdrawal automatically results in the reservation of unappropriated waters for the purposes of the reservation.

The effect of this broad construction of the doctrine can be demonstrated by applying it to the general executive withdrawal orders of 1934-35, where-

under all of the vacant, unappropriated public lands of the United States were withdrawn for the purposes of classification under Section 7 of the Taylor Grazing Act, act of June 18, 1934, ch. 865, 48 Stat. 1269, 43 U.S.C. 315 (1964). Exec. Order No. 6190, Nov. 26, 1934, 54 I.D. 539 (1934); Exec. Order No. 6964, Feb. 5, 1935, 55 I.D. 188 (1935). If the government's proposition were accepted, then subsequent to the issuance of these orders, all of the unappropriated waters on the public lands of the country became thereby subject to a federal claim for the purpose of administering the Taylor Grazing Act. Examination of the rationale behind the reservation doctrine and careful analysis of the statutory authority for the 1934 and 1935 executive withdrawals discloses, however, that these withdrawals did not involve the implied reservation doctrine for waters contained thereon.

The application of the reservation doctrine is dependent on the assumption that the government intended to reserve unappropriated water for the reserved land. Thus, in the landmark case of *Winters v. United States*, 207 U.S. 564 (1908), this Court ruled that Congress must have intended to reserve rights to water for lands that it set aside by treaty for an Indian reservation, even though it did not expressly provide for them. This intention to reserve water was implied on the basis that it would be unconscionable for the United States to have induced Indians onto a reservation, where they were to settle and develop an agricultural economy with-

out supplying them an adequate supply of water for agricultural and related purposes. However, the special circumstances that may justify an implication of intent to reserve water for the Indians—treaties attempting to convert the Indians from a nomadic to a pastoral life, the doctrine that agreements with Indians are to be construed in favor of the Indians, and the fear that the Indians could not compete with the more advanced non-Indians in acquiring the water and putting it to beneficial use — are not present with respect to other federal establishments. Note, *Water in the Woods: The Reserved Rights Doctrine and National Forest Lands*, 20 Stan. L. Rev. 1187, 1188 (1968). A significantly greater showing of an intention to reserve waters for non-Indian lands as opposed to Indian lands should therefore be required. If this intention is not expressed in the legislation or order authorizing the withdrawal, or if it is not clearly implied from the authorization, then the government should not be deemed to have reserved rights.

Under the above test, it is clear that the general executive withdrawals of 1934 and 1935 pursuant to the Taylor Grazing Act of 1934, supra, are not entitled to reserve water rights. The 1934 withdrawal, which embraced all of the Western States, declared that it was "necessary to classify all of the vacant, unreserved and unappropriated lands of the public domain . . . for the purpose of effective administration of the provisions of [The Taylor Grazing Act of 1934]." Exec. Order No. 6190, Nov. 26, 1934, 54 I.D. 539 (1934). Nothing in the withdrawal order directly

refers to any intention to reserve water on the public domain. Nevertheless, such an intent could conceivably be implied from the reference to the purposes of the Taylor Act "for conservation and development of natural resources." C. Wheatley & C. Corker, *Study of the Development, Management, and Use of Water Resources on the Public Lands* 243 (1969). However, the Taylor Act clearly disclaims any authority thereunder to impair state water rights. Thus, it states:

> "Provided further, that nothing in this chapter shall be construed or administered in any way to diminish or impair any right to the possession and use of water for mining, agriculture, manufacture, or other purposes which have heretofore vested or accrued under existing law validly affecting public lands or which may hereafter be initiated and maintained in accordance with such law. . . ." 43 U.S.C. § 315 b (1964).

In view of this disclaimer, it cannot be reasonably argued that the President was entitled to reserve water rights in connection with the lands withdrawn in 1934 and 1935 to administer the Taylor Grazing Act.

Such an analysis of the statutory authority for each withdrawal must be made in order to determine the government's reserved rights claims. It is the position of the *amici* that such an examination of the Act for the Preservation of American Antiquities under which President Truman withdrew the 40 acre tract of land containing Devil's Hole, and the Act's statu-

tory background and subsequent executive interpretation clearly discloses that the President also had no authority to reserve waters thereunder for the purpose of protecting an endangered species of desert pupfish, and that the lower court erred in concluding otherwise.

The Act for the Preservation of American Antiquities passed in 1906 vested the President of the United States with authority to "declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest . . ." and to reserve parcels of land as national monuments "the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected." 34 Stat. 225, 16 U.S.C. § § 431-33. There is no evidence whatsoever in the language of the Act to intimate that the President was vested with authority to reserve water as distinct from "parcels of land." Thus, both executive proclamations establishing the Death Valley National Monument prior to 1952 reserved only "certain lands" for the Monument pursuant to the Act. Proc. No. 2028, Feb. 11, 1933, 47 Stat. 2554; Proc. No. 2228, Mar. 26, 1937, 50 Stat. 1823.

Furthermore, the purpose of the Act was to preserve American antiquities of historic and scientific interest. There is absolutely no indication that the Congress intended to vest the executive with authority to make reservations under the Act for the purpose of conservation of wildlife. Indeed, the House Report on the 1906 Act negates any notion of such an intention. It provides

that "[t]he bill proposes to create small reservations reserving *only so much land* as may be absolutely necessary for the preservation of those interesting relics of prehistoric times." (Emphasis added). H. R. Rep. No. 2224, 59th Cong., 1st Sess.

The Ninth Circuit accepted the government's argument that Section 1 of the National Park Service Act of 1916 supports the conclusion that a fundamental purpose of national monuments is to preserve wildlife. The National Park Service Act established the National Park Service to promote and regulate the use of national parks and monuments "by such means and measures as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same by such manner and such means as will leave them unimpraired for the enjoyment of future generations." 39 Stat. 535, 16 U.S.C. § 1.

It is submitted that this language is of little or no relevance in determining the purposes of the 1906 Act in question. It is a general provision establishing a new agency with duties that would include the operation of national parks, national monuments, and national historic areas, each having a distinct public purpose warranting protection. The language set forth above was merely a summary of these separate purposes. Moreover, whatever the purposes of national monuments, there is no evidence in the National Parks Service Act to support the government's con-

tention as to the basic issue in this case; whether the President was authorized under the Act for the Preservation of American Antiquities to reserve water as distinct from land for the purpose of protecting an endangered species. Indeed, in addition to the legislative history of the Act for the Preservation of American Antiquities set forth above, the history of the National Parks Services' administration of the national monuments, subsequent Congressional appropriations for the National Parks Service, and finally, a Solicitor General's opinion, make apparent that the President had no such authority.

The National Parks Service, which has jurisdicition over Death Valley National Monument and therefore Devil's Hole, has for some time followed the policy that the Parks Service should adhere religiously to state law with respect to the establishment and maintenance of water rights for use on lands under their jurisdiction. C. Wheatley & C. Corker, *Study of the Development, Management, and Use of Water Resources on the Public Lands* 310 (1969). Thus, the following statements were contained in a proposed chapter for a Parks Service handbook:

> "It is particularly important [for Superintendents] to check with the State Engineer, State Water Board or other proper state authority to determine whether a license or permit is required before a well is started." National Park Service, Resources Management Handbook, proposed Ch. 8, § 3 at 4 (Sept. 1967).
>
> "Where other [water] rights are senior, Superintendents must always respect the prior rights. The need for following these practices arises in connection with the use of water to fill water holes and troughs for wildlife and to store water for domestic and other purposes. It is also good policy to always take water during hours, days, or other periods of comparative plenty. Adherence to this policy often promotes good will and cooperation and can avoid embarrassment in situations in which the Parks' rights are junior to other rights outside the boundaries of the Parks." *Id.* § 3 at 5.

Not only does the proposed chapter on water rights for the Park Services handbook emphasize the importance of compliance with state law, but more importantly no reference is ever made to the reservation doctrine and its potential effect upon water rights acquired under state law. C. Wheatley & C. Corker, *Study of the Development, Management, and Use of Water Resources on the Public Lands* 311 (1969).

Language of a Congressional act of 1946 also clearly demonstrates that Congress as well contemplated that water rights on Park Service lands were to be acquired by the Service pursuant to state law. It provides as follows:

> Appropriations for the National Parks Service are authorized for—
>
> . . . .
>
> *(G) Investigation and establishment of water rights in accordance with local custom, laws, and decisions of courts.* Including the acquisition of

> water rights or of lands or of interests in lands or rights-of-way for use and protection of water rights necessary or beneficial in the administration and public use of national parks and monuments. Act of Aug. 7, 1946, Ch. 788, 60 Stat. 885 (emphasis added).

Note that there is no mention, or even inference, in the statutory provision that acquiring water rights pursuant to state law was being done as a matter of comity on the theory that the withdrawal of the lands reserved all water rights not then validly appropriated.

But there is even more telling evidence that Congress did not intend by either the Act for the Preservation of American Antiquities or the National Parks Service Act to vest the executive with power to reserve water on or adjacent to national monument lands for the purpose of preserving aquatic life. In an opinion issued subsequent to both Acts, the Solicitor General for the Department of the Interior responded to the question of whether there was legal authority for granting a request of the State of Arizona for permission to construct and operate a fish hatchery in the Papago Suguaro National Monument for the purpose of restocking streams and lakes located within the state. *Use of National Monument Lands for Fish Hatchery Purposes*, 51 I.D. 497 (1926). After citing the National Parks Service Act, and noting the arid nature of the National Monument, the Solicitor concluded that "it could not be contended that the primary purpose of a hatchery so located would be to subserve, maintain,

or develop the reservation in harmony with the purpose for which it was established. . . ." At the same time, the court distinguished an arrangement with the State of California whereby the state was permitted to install a fish hatchery in the Yosemite *National Park*, noting that it was in line with the purposes of that reservation. It is also instructive to note that, although the opinion dealt with Papago Saguaro National Monument, it was entitled "Use of National Monument Lands for Fish-Hatchery Purposes." Moreover, the extremely arid nature of Death Valley National Monument is well known. Surely under the reasoning of the Solicitor's opinion, therefore, it also cannot be contended that the addition of 40 acres of land and sufficient groundwater to preserve an endangered species of desert pupfish is in harmony with the purposes for which Death Valley National Monument was established pursuant to the Act for the Preservation of American Antiquities.

In conclusion, assuming, *arguendo*, that the President intended by the Presidential Proclamation of 1952 to reserve water as well as land for the preservation of an endangered species of pupfish, it is clear that he had no authority to do so under the Act for the Preservation of American Antiquities upon which he relied, or any subsequent Congressional act or authorization. The lower court's erroneous conclusion to the contrary presents not only an ominous threat to state granted water rights in waters on or adjacent to the vast national monuments in the West, but also to waters on or adjacent to other reservations

where it is likewise evident that Congress did not intend to reserve water for reservation purposes as distinct from land. The *amici* therefore urge this Court to reverse the Ninth Circuit's decision.

B. THE RESERVATION DOCTRINE SHOULD NOT BE EXTENDED TO APPLY TO PERCOLATING GROUNDWATER SO THAT THE GOVERNMENT IS ENTITLED TO ENJOIN AN ADJACENT LANDOWNER FROM PUMPING WATER FROM BENEATH HIS LAND PURSUANT TO STATE GRANTED RIGHTS.

Despite suggestions in the lower court's opinion to the contrary, neither of the two cases that have dealt with the reservation doctrine in deciding groundwater rights constitute firm precedent for the lower court's holding. The first case was *State ex rel. Shamberger v. United States*, 165 F.Supp. 600 (D. Nev. 1958), aff'd on other grounds, 279 F.2d 699 (9th Cir. 1960), in which the Nevada Federal District Court held that the federal government could use underground waters located under a Naval Depot without obtaining a permit from the state. The court relied on this Court's decision in *Federal Power Commission v. Oregon*, 349 U.S. 435 (1955), in reasoning that since the United States possessed both ownership and control of the land within the scope of its delegated functions under the War Power, it enjoyed a superior position under the Supremacy Clause and state laws need not be observed. However, the significance of *Shamberger* in regard to the present case is, at best, very limited. In the first place the court was not dealing with federal

claims to reserved groundwater rights as against private uses adjacent to the reserved property. Secondly, the Ninth Circuit Court on appeal directed that the case be dismissed because the District Court was without jurisdiction. Under such circumstances, the holding in *Shamberger* does not rise to the level of obiter dictum and thus has no value as a precedent applicable in deciding the issues in the instant case.

The case of *Tweedy v. Texas Company*, 286 F.Supp. 383 (D. Mont. 1968), also referred to the reservation doctrine with respect to percolating water. The owners of land within an Indian reservation brought an action for damages against the holder of an oil and gas lease for all groundwater drawn by the lessees and used in the extraction of oil. The plaintiff claimed that he had rights to the groundwater as an incident of ownership of land. The court noted that the reservation of waters for the Indian lands would apply both to surface or underground water. This statement, however, was completely gratuitous in view of the court's decision against the plaintiff on the basis that it had failed to show any damage caused by the defendant's use. Furthermore, the issue of whether the owner of federal reserved water rights may prevent the use of water by adjacent private parties in order to protect its own underground water supply was also not before the court in *Tweedy*. Thus, the language in *Shamberger* and the dictum in *Tweedy* were in no way dispositive of the issues before the Ninth Circuit in the present case. Moreover, the rationale for the reservation doctrine—the implied

intent of Congress to provide water for the purposes of the reservation—does not support an extension of the doctrine to percolating groundwaters.

Surface water flowing through or by reserved lands should have been apparent to Congress at the time of the withdrawal; thus, it can be reasonably asserted under the proper circumstances that Congress had "impliedly" reserved the surface water for use on reserved lands. In the case of groundwater however, the existence, extent, and flow of groundwaters underneath reserved lands could not have been apparent to Congress, and it is therefore unreasonable to impute to Congress an intent to reserve such waters. Note, *Federally Reserved Rights to Underground Water—A Rising Question in the Arid West*, 1973 Utah L. Rev. 43.

There is also another fundamental difference between surface and percolating waters. Since surface water moves rapidly over a stream bed, an upstream diversion can affect the downstream user within a matter of hours. Percolating water, on the other hand, moves very gradually through no defined channel and because of false non-porous materials and other natural factors, it is often impossible to predict the effect of the drawing of groundwaters on other water supplies. Thus, a groundwater user adjacent to a reservation can pump water for years before the total effect is known. By that time, he could have made a substantial investment in the land and water use. Under such circumstances, application of the reservation doctrine with its no compensation feature

would be unconscionable. *Id.*

Groundwater is a significant resource in the United States. In 1963 one fifth of the nation's water needs were met from underground sources and this proportion is projected to reach one half in the near future. Comment, *Appropriation and Colorado's Groundwater: A Continuing Dilemma*, U. Col. L. Rev. 133, 134-35 (1967). It is not known to what extent groundwater supplies are derived from federally reserved lands. However, the amount will probably parallel surface water in percentages. Note, *Federally Reserved Rights to Underground Water—A Rising Question in the Arid West*, 1973 Utah L. Rev. 43, 46. Realizing the importance of this resource, most Western States have enacted comprehensive statutes governing groundwater use. Applying the reservation doctrine as did the Ninth Circuit precludes state control under these statutes over the use of underground water under both the reserved land and adjacent non-reserved land to the extent deemed necessary to fulfill the purposes of the reservation. Moreover, since it is nearly impossible to predict the extent and flow of groundwaters, state administrators, as a result of such a decision, could well become reluctant to issue any permits for the drilling of wells in the general vicinity of reserved lands in anticipation that the government could at some point in the future successfully assert a right to the same groundwater. In view of the percentage of western lands in federal ownership such a result would significantly impair the efforts of the Western States under their ground-

water statutes to control the use of groundwater and to afford security in its use through state granted permits.

Even if the reservation doctrine should be held applicable to ground water, such an extension does not justify an application of the doctrine so that the United States may dominate the entire acquifer in a monopolistic manner. The *amici* suggest that the present injunction issued forth from a confused state of the law concerning the reservation doctrine and its relationships with traditional Western States water law.

Controversies represented by the instant case are inevitable. When they arise between private parties, the party in the present position of the United States has often been accorded the right of an owner of land overlying ground water, under whatever water doctrine prevails in the jurisdiction in question. II Hutchins, *Water Rights in the Nineteen Western States* 595 (1974). If *Federal Power Commission v. Oregon*, supra, 349 U.S. 435 teaches that state water laws do not apply to reservations, then when the United States is a party to the controversy as in the instant case, the resolution of issues involving the reservation is complicated by the fact that there is no federal water law. See *United States v. Hennen*, 300 F. Supp. 256, 260 (D.Nev. 1968). "There is no body of Federal common law separate and distinct from the common law existing in the several states . . . For after all, the common law is but the accumulated expressions of the various judicial tribunals in their efforts to ascertain what is right and just between individuals in respect to private disputes."

Kansas v. Colorado, 206 U.S. 46, 96, 97 (1907). There is a rich background of common law which has developed and expounded the policies and doctrines suitable to the determination of water rights in the arid and semiarid Western States. Recognition of each Western State's substantial interest in its own system of state water rights requires that the reservation doctrine be amenable to State policies and doctrines.

With regard to the proper law of the case, the contention is supportable that the common law of riparian rights could have governed the instant controversy even though the State of Nevada follows the doctrine of prior appropriation. The instant case provides an interesting analogy to *Bonelli Cattle Co. v. Arizona*, 414 U.S. 313 (1973) wherein riparian principles were held applicable. In *Bonelli* a federal rechannelization project affected Arizona's title to land; here a federal reservation affected Nevada's title to water. This Court applied federal law in *Bonelli* to establish the extent of State ownership in the bed of a navigable river under the Submerged Lands Act and equal footing doctrine; it applied State law to determine whether there had been any divestment of the State's interest; and it applied the federal common law riparian principles of accretion, reliction and avulsion to resolve the question of ownership of the bed when the course of the river had changed. Similarly, federal law, state law and federal common law may appropriately apply to various aspects of the instant case. The State's jurisdiction over water on public lands was construed in *California Power Co. v. Beaver Cement Co.*, 295 U.S. 142, 163-64

(1935) wherein this Court held that:

> "following the act of 1877, if not before, all non-navigable waters then part of the public domain became *publici juris*, subject to the plenary control of the designated states, including those since created out of the territories named, with the right in each to determine for itself to what extent the rule of appropriation or the common law rule in respect of riparian rights should obtain."

Thus, the States' grant of power by Congressional legislation is determined by federal law, but as in *Bonelli* state law thereafter determines the extent of rights granted in the public waters under the applicable state selected scheme of prior appropriation or riparian rights. It is of special interest to note that the Court in the *California Power Co. Case* recognized that Congress had vested the power in the states to affect the riparian rights of the United States as to non-navigable waters which were a part of the public domain, but the *Federal Power Commission* case, supra, held without persuasive discussion that such power did not extend to Federal reservations. 349 U.S. at 448. With respect to reservations created after 1877, the objectionable conclusion that what Congress has given Congress may take away may be mollified only by recognizing the grant of substantial powers to the Western States under the acts of 1866 and 1870 and the Desert Land Act of 1877 and by reconciling the effects of subsequent reservations with the States' substantial interests in their established systems of water rights determination and administration. If the Federal government is not bound

by the States' laws, then it is reasonable to assume that the federal common law of riparian rights remains intact as a substructure to adjust competing interests involving the reservation. If so, then it should be applied with the proviso as recognized in *Bonelli* at 323-24 that the federal common law be supplemented by requiring an appraisal of the State's interests which may be affected. See also the Special Master's Report at 22 in *Utah v. United States* 420 U.S. 304 (1975). The paramount interest of the States in this regard is the protection of private water rights granted pursuant to procedures authorized by Congress as against competing rights arising from a subsequent reservation by the United States, and in every case where a "legitimate claim of entitlement" arises under a state granted water right, the reliance on that right should not be arbitrarily undermined by the government's subsequent claim of an implied right under the reservation doctrine. *Amici* suggest therefore, by the analogy to *Bonelli* that with respect to federal reservations on western lands, at least, that if the applicable water law more appropriately is the federal common law of riparian rights as modified by the special circumstances and necessities of the Western States, then the injunction was improper under the circumstances of the instant case.

The application of the common law of riparian rights to the instant case is supported by other considerations. According to Samuel C. Wiel, author of a well-known treatise on Western States water law, the *Winters* doctrine water rights incident to a Federal reservation are similar to those of a riparian propri-

etor. 1 Wiel, *Water Rights in the Western States*, § 207 (3 ed. 1911). He concludes that:

> ". . . [I]f the proprietary rights of the United States are recognized *beyond actual use*, it can only be because the common law of riparian rights is regarded as in force in all jurisdictions as to the United States, itself, at least." (emphasis added)

The position of the United States in the instant case is similar to a lower riparian proprietor's insistence that the full flow of the stream be maintained past his land.

If the common law of riparian rights is applicable to the instant case, then the question arises as to the controlling legal principle. The relationship between surface and underground waters has often been recognized by the courts with the result that riparian principles have influenced the development of Western States underground water law. The strict common law rule of absolute ownership of percolating ground waters laid down in *Acton v. Blundell*, 12 Mees. & W. 324 (Exch. Chamber 1843) has been modified by application of riparian principles in Western States case law. The fundamental proposition of reasonable use of percolating ground water established by the California Supreme Court in *Katz v. Walkinshaw*, 141 Cal. 116, 70 Pac. 663, 74 Pac. 766 (1906), has become known as the American Rule. It depends upon a riparian principle, equality of right, the classical statement of which was made by Justice Story in *Tyler v. Wilkinson*, 4 Mason 397, 24 Fed. Cas. 472, 474 (1927):

> "There may be and there must be, allowed to all, of that which is common a reasonable use . . . There

> may be a diminution in quantity . . . perfectly consistent with the existence of the common right. The diminution . . . not positively and sensibly injurious by diminishing the value of the common right, is an implied element in the right. . . ."

Wiel's analysis of the line of cases beginning with *Katz* indicates that the issue involved in a determination of reasonable use focuses on the nature and extent of the damage to the complaining party, and such damage, if shown, is not wrongful if done in the reasonable use of the land of the party complained of. 2 Wiel, supra, § § 1049-65. Another noted text writer, Clesson S. Kinney, in discussing *Katz*, expressed this view:

> "But before either a preliminary or a final injunction in such cases will be granted, there must be the clearest showing upon the part of the party seeking such relief, that there is imminent danger of irreparable and substantial injury to his rights, and that the diversion complained of is the real cause of such injury, and, further, that he has not been guilty of laches or unreasonable delay in seeking to protect his rights." 3 Kinney, *Irrigation and Water Rights* § 1616 (2d ed. 1912).

When the level of the water in Devil's Hole drops below 3.3 feet below the copper washer, the Cappaerts are enjoined from pumping regardless of the cause of the lowering of the surface. Such a decree is not in accord with the doctrine of reasonable use; it provides for a sharing of only the surplus waters, if any, over and above the needs of the reservation.

The District Court in the instant case foreclosed

judicial consideration of the important issues concerning reasonable use when it ruled that the water rights of the United States are superior in time and right to those of the Cappaerts because the federal reservation of January 1952 had predated any actual beneficial use by the Cappaerts under state law. By allowing the Federal Government to exert an exclusive right based on a priority of use in time, the Court conferred a benefit accorded not even actual appropriators under Nevada's statutory scheme; a scheme with which the Government refuses to comply. The Court thereby excused the Government from the burden of persuasion with respect to the equities involved in reasonable use. Such judicial indulgence enables the Federal Government to pick and choose only the most favorable elements from traditional water law doctrines. Elements from one doctrine are woven together with elements from another doctrine to produce a hybrid system which avoids the burdens of both the riparian and prior appropriation doctrines and which emasculates the salutary principles of Western States water law. The effect is the creation of a monopoly under the guise of reserved rights, which is not only antithetical to reasonable use and prior appropriation, but is in derogation of the Western States' policies of an equitable sharing of their limited water resources.

If this Court should hold that a non-statutory prior appropriation is the law of the instant case and controlling with respect to the reservation doctrine, then the *amici* urge that it be fairly applied consistent with the policies of the common law of prior appropriation as

laid down in the Western States case law. The *amici* are confident that such an application will reveal the improvidence of the injunctive relief under the circumstances of the instant case.

Prior appropriation depends upon an actual appropriation of a quantity of water for a beneficial use such that notice of the fact of appropriation is fairly imputed to the appropriator's neighbors. Whether an appropriation may be effected by nothing more than a presidential proclamation, or for that matter any withdrawal of public lands, is questionable under traditional Western States concepts. Even if it were possible, the government is not immune from the affirmative duties of diligence and efficiency that precondition a senior appropriator's priority call over a junior's water rights. An appropriator cannot demand the full flow of the natural stream to accomplish his purpose, but instead must, when the water is needed by others, substitute efficient means of diversion and application. *E.g.*, *Empire Water and Power Co. v. Cascade Town Co.*, 205 F.123 (8th Cir. 1913). An appropriator cannot even insist upon the maintenance of stream flow at his point of diversion where the above policy requires that he replace the natural flow that formerly came to his headgate with wells in order that junior pumpers from wells can also get their water. *Templeton v. Pecos Artesian Cons. Dist.*, 65 N.M. 59, 332 P.2d 465 (1958). There is no reason why a federal use of water under the reservation doctrine should not have attached to it the same requirement of efficiency. Assuming for the sake of argu-

ment that the United States has the priority in this case, it is not controlling. It was the prior appropriators who were bound to improve their works in *Empire* and *Templeton supra*. See also *In Re Silves River*, 115 Ore. 27, 237 P.322 (1925); *Warner Valley Stock Co. v. Lynch*, 215 Ore. 523, 336 P.2d 884 (1959). The United States may well be able to pipe water into Devil's Hole to maintain the required water level around the shelf by use of an injection well above the Hole. (Injection wells have been used along the California seacoast to prevent salt water encroachment). In such fashion, the pupfish could be protected without impairing or destroying the water rights of irrigators adjacent to the reservation. After all, the preservation of the pupfish is for the benefit of all the people of the United States and the costs necessitated by that preservation are properly allocated to the government, not to the irrigators.

This Court has recognized the fundamental concepts of prior appropriation and the dangers of monopoly when the docrine is misapplied. In *Schodde v. Twin Falls Land and Water Co.*, 224 U.S. 107 (1912) the United States Supreme Court held that one who had lawfully appropriated the amount of water from a stream in Idaho to which he was lawfully entitled for beneficial use could not restrain those below him from raising the river so as to interfere with the power via a water wheel necessary to raise the water appropriated by him to a height necessary for distribution over his land; neither his appropriation nor his riparian rights gave him any control over the current

of the stream. In so holding the Supreme Court cited one of its earlier opinions as follows:

> "In *Basey v. Gallagher*, 20 Wall. 670, 683, the Supreme court of the United States said: 'Water is diverted to propel machinery in flour-mills and saw-mills, and to irrigate land for cultivation, as well as to enable miners to work their mining claims; and in all such cases the right of the first appropriator, exercised within reasonable limits, is respected and enforced. We say within reasonable limits, for this right to water, like the right by prior occupancy to mining ground or agricultural land, is not unrestricted. It must be exercised with reference to the general condition of the country and the necessities of the people, and not so as to deprive a whole neighborhood or community of its use and vest an absolute monopoly in a single individual.' "

The Supreme Court further cited with approval the case of *Fitzpatrick v. Montgomery*, 20 Montana 181, 187 as follows:

> "While any person is permitted to appropriate water for a useful purpose, it must be used with some regard for the rights of the public. The use of water in this state is declared by the constitution to be a public use.... It is easy to see that, if persons by appropriating the waters of the streams of the state became absolute owners of the waters without restriction in the use and disposition thereof, such appropriation and unconditional ownership would result in such a monopoly as to work dis-

> astrous consequences to the people of the state. The tendency and spirit of legislation and adjudication of the northwestern states and territories have been to prevent such a monopoly of the waters of this large section of the country, dependent so largely for prosperity upon an equitable, and, as far as practical, free, use of water by appropriation."

Finally the Supreme Court concluded that the "application here sought to be made of the doctrine of riparian rights would be absolutely destructive of the fundamental conception upon which the theory of appropriation for beneficial use proceeds, since it would allow the owner of a riparian right to appropriate the entire volume of the water of the river without regard to the extent of his beneficial use." The injunction in force in the instant case seems to grant to the United States what the Supreme Court concluded was not in the public interest of the people of another State.

Neither the Property Clause nor the Supremacy Clause of the Constitution warrants an interpretation of the reservation doctrine which excuses the government from the obligations imposed by traditional Western States water policies and doctrines. Such an extension of the doctrine would jeopardize countless private water rights established under state permit systems and be disruptive of future water administration in the Western States. Congress did not intend such a result under the Acts of 1866 and 1870, the Desert Land Act of 1877, or indeed, the Act for the Preservation of American Antiquities. "Congress has followed a consistent

policy of adherence to state law with regard to the acquisition and administration of water rights by the federal government." *In re Green River Drainage Area*, 147 F. Supp. 127, 145 (D. Utah 1956). See also the numerous supporting citations at 145-46.

The citizens of the Western States have a close and profound involvement in the lands in which they live. They have made productive what was largely wilderness, but they could not have done so without water. The legislatures and courts of the Western States often through agonizing and intense efforts have attempted to achieve for their citizens a secure method of maximizing their scarce water resources. Only in this manner could they afford a measure of security of investment which would justify the rigors of a sometimes harsh existence. Continued development of the West depends upon judicious water planning. Future federal water reservation of unlimited magnitudes would seriously undermine, if not eliminate, state water planning in many areas. Only if the claims of the Federal government are reasonably foreseeable under an equitable legal system, is it possible for State water planners to provide adequate water programs for the future that will encourage continued development of western lands; public policy would seem to require at least this.

C. THE UNITED STATES IS BARRED UNDER THE PRINCIPLES OF COLLATERAL ESTOPPEL FROM INITIATING A COURT ACTION TO ADJUDICATE ISSUES DECIDED IN A PRIOR STATE ADMINISTRATIVE PROCEEDING IN WHICH IT PARTICIPATED, BUT FROM WHICH IT FAILED TO APPEAL.

This Court in *United States v. District Court of Eagle County*, 401 U.S. 520 (1971), established that

federally reserved water right claims may be adjudicated within the framework of state statutory schemes. The United States cannot reasonably contend that the state did not have jurisdiction in the prior administrative proceeding by raising the doctrine of sovereign immunity since that doctrine is simply not applicable to the facts of this case. The doctrine provides that the government cannot be sued in its own courts, or in any other, without its consent. Here, the government was not sued, but instead intervened in the proceeding of its own volition to present its case against granting the defendant's application. As this Court stated in an analogous situation:

> "There is no merit to the suggestion that the United States, in presenting its claim in the state proceeding, would be compelled to take the position of a defendant,—being sued without its consent. In intervening for the presentation of its claim, the United States would be an actor—voluntarily asserting what it deemed to be its rights—and not a defendant."

Thus, the Nevada State Engineer in the administrative proceeding was competent to render a decision binding on all parties as to all matters affecting the defendant's application including the question of a conflicting federally reserved right.

Issues that were or could have been adjudicated in an administrative proceeding have been held barred from being litigated in a subsequent court action,

especially where, as here, the determinations are made for a purpose similar to that of a court and in proceedings similar to judicial proceedings. *E.g., Magnolia Petroleum Co. v. Hunt*, 320 U.S. 430 (1943); *United States v. Utah Construction Co.*, 384 U.S. 394 (1966); *United States v. William Tablet Co.*, 141 F.2d 141 (7th Cir. 1944). This principle of collateral estoppel has been held applicable even though the aggrieved party fails to appeal the administrative decision. *Paramount Transport System v. Chauffers, Teamsters and Helpers, Local 150 et al.*, 436 F.2d 1064 (9th Cir. 1971). Such state decisions must be given the same effect in federal courts as is given to them by the courts of the state in which they are rendered. *See* e.g. *Wright v. Georgia R & Bkg. Co.*, 216 U.S. 420 (1909); *Union & Planter's Bank v. Memphis*, 189 U.S. 71 (1903); 47 Am. Jur. 2d Judgments § 1289. For the purpose of the rule of collateral estoppel or *res judicata*, "parties" barred under the rule are not merely those who are named as such in the record and properly served with process, but includes persons who have a direct interest in the subject matter of the action and have a right to control the proceedings, defend, examine witnesses, and appeal if an appeal lies. *E.g., Vane v. Haffberger Co.*, 196 Md. 450, 77 A.2d 152 (1950). This principle is also applicable to the federal government. As this Court stated in *Drummond v. United States*, 324 U.S. 316, 318 (1944):

> "If the United States in fact employs counsel to represent its interests in a litigation or otherwise actively aids in its conduct, it is properly enough deemed to be a party and not a stranger to the litigation and bound by its results. Compare *United States v. Candelaria*, 271 U.S. 432; 16 F.2d 559, with *Logan v. United States*, 58 F.2d 697. But to bind the United States when it is not formally a

party it must have a laboring oar in a controversy."

The above rules have been held applicable to reserved rights claims of the United States. In the case of *In re Green River Adjudication v. United States*, 404 P.2d 251 (Utah 1965), the court held that since the United States had become a party and had asserted its water rights claims in the adjudicatory proceeding, the court had jurisdiction of the subject matter and the parties, and any determination with regard to the water rights of the United States was therefore *res judicata* as to "any water rights which have been or could have been claimed within the adjudication. . . ." *Id.* at 252. This included the claims for additional reserved rights asserted by the government. The court stated that "if the rule were otherwise, the government through its agents, could be wholly arbitrary about asserting water rights, if and when it pleased." *Id.* at 252.

It is submitted that under the above principles the United States should have been barred from asserting in this case reserved rights claims determined in the prior state administrative proceeding. Prior to the administrative hearing, the United States filed written protests on the basis that the pumping of the wells would adversely affect the water in Devil's Hole and thus result in harm to the fish living in the pool. This objection was reiterated in detail at the hearing before the State Engineer. President Truman's proclamation and expert testimony on the hydrology of the Ash Meadow area were introduced by the government. The nature, value and extent of the competing interests of the federal government and adjacent land owners was thoroughly argued during the hearing. As the transcript reveals, the issue of the lowering of the water in Devil's Hole and the effect on the fish therein was thoroughly considered. Although the federal government did not specifically assert an implied reserved water right, the existence of a federal water right was considered, but it was concluded that one did not exist. After the State Engineer rendered his decision granting the applications, all parties were informed that they had thirty days in which to appeal according to Nevada's statutory procedures. These procedures have been held by the Supreme Court of Nevada to be the exclusive remedy for those aggrieved by a decision of the State Engineer, *Jahn v. Sixth Judicial District Court In and For Humboldt County, et al*, 73 P.2d 499 (Nev. 1937), and by a federal court to fully comply with due process requirements, in that they provided any aggrieved party a full opportunity to be heard before a court of competent jurisdiction with right of appeal to the Supreme Court. *Humboldt Lovelock Irrigation Light & Power Co. v. Smith*, 25 F.Supp. 571 (D. Nev. 1930). The United States did not appeal. Approximately six months later the government filed its complaint in this case in the Federal District Court. Allowing the government to thus initiate a judicial action six months subsequent to the administrative determination and after a substantial investment by the individual defendant in reliance upon the administrative decision is to clearly violate the principles of collateral estoppel and to make meaningless

the administrative order of the State Engineer and Nevada's statutory procedures to appeal the order.

From the earliest times, water law has been state law. The states have systems of water law and procedures adapted to water supply, climate, and demand. The United States does not. The initial forum, therefore, to achieve coordination and accommodation of federal uses with state and private uses is properly the state court, or in the case of Nevada, the administrative adjudication procedure which substitutes in the first instance in place of a court, the State Engineer, expert in the area of water use, and from whose order an aggrieved party may appeal to the state courts. The opinion of this Court in the *Eagle County* case, *supra*, supports this position. Furthermore, this Court there set forth the proper method by which the federal government could obtain review of the state determinations as to its reserved rights claims:

> "*All such questions*, including the volume and scope of a particular reserved right, are federal questions, which, *if preserved*, can be reviewed here after *final* judgment by a Colorado Court." (Emphasis added).

The logical meaning of "if preserved" is that the United States must pursue state appeal procedures in order to "preserve" its claims for review in federal court. Further emphasis is placed on state review when the Court referred to "final judgment." The implication is that the United States must pursue protection of its rights in State Courts, and must pursue its remedy to final State Court judgment *before* seeking Federal Court review.

It is submitted that the proper remedy of the United States in this case was to appeal the decision rendered in the administrative proceeding to determine the individual defendant's water right application. Holding otherwise, as did the Ninth Circuit, allows the government to have a second independent review of its reserved rights claims in disregard of prior determinations under state laws and procedures. Such a decision can only exacerbate the uncertainties to which the reservation doctrine already subjects state created water rights in the West.

V. CONCLUSION

The federal government in this case has argued from the beginning that this case will determine the survival of the Desert Hole pupfish, and such thinking may well have caused the lower court to overlook the serious consequences on state water laws and procedures which its decision could have. Justice Jackson in *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952) warned that powers finding their genesis only in necessity are potentially limitless and cautioned against using a result-oriented approach:

> "The opinions of judges, no less than executives and publicists, often suffer the infirmity of confusing the issue of a power's validity with the cause it is intended to promote . . . The tendency is strong to emphasize transient results upon policies . . . and lose sight of enduring consequences upon the balanced structure of the Republic." *Id.* at 634.

Upholding the government's claims only on the basis of the necessity to preserve the pupfish is not only unwise, but unfounded. This case does not involve the survival of the Devil's Hole pupfish. As pointed out by a leading authority on the preservation doctrine:

> ". . . [T]he reservation doctrine adds nothing to the power of the United States to take and use the water it needs for any constitutional purpose or power. If a constitutionally enacted statute gives an agency of the United States the power to perform a federal function on any federal land in any state, whether public land, reservation or acquired land, and that function requires the use of water, no state's law can block or limit the use of water or acquisition of a water right. No theory of federal ownership or reservation is required. The only difference resulting from reliance on the reservation doctrine instead of on a more basic federal power is that in some cases where the water is taken from persons who have previously put it to use the United States need not pay for the taking. The reservation doctrine is a financial doctrine and nothing more." F. J. Trelease, *Federal-State Relations in Water Law* 147 M (1971).

Thus, if the United States determined that the condemnation of the defendant's water rights was necessary in order to preserve the Devil's Hole pupfish, it would have ample power to do so under the Endangered Species Act, which empowers the Secretary of the Interior in carrying out the program "to

acquire by purchase, donation or otherwise, lands, waters or interests therein . . ." 16 U.S.C. Section 1534. Nevada law could not block or limit that acquisition. No reliance on the reservation doctrine would be required. Instead, the government chose to rely on reserved rights claims in the hope that it could avoid paying compensation for the destruction of the defendant's water right. Such was clearly not the result intended by Congress when it passed legislation specifically designed to protect endangered species. Act of October 15, 1966, P. L. 89-669, 80 Stat. 926, 16 U.S.C. 668 dd(i); Act. of December 5, 1969, P. L. 91-135, 83 Stat. 275; Act of December 28, 1973, P. L. 93-205, 87 Stat. 884, 16 U.S.C. § § 1531-1543. Although twice amended since its original enactment in 1966, the Act has always provided as follows: "Nothing in this Act shall constitute an expressed or implied claim or denial on the part of the federal government as to exemption from State water laws." 16 U.S.C. Section 668 dd(i).

Even if the government were held to have sufficient reserved rights to protect the pupfish, it should not follow that they are entitled to completely preempt all other uses in the underground aquifer which jeopardize the designated water level in the Hole. The United States has no immuity from the same policies which influnced the shape of state laws and state water rights, though in the case of reserved rights it may not be bound by those laws. Water should be efficiently used, and water law, state or federal, should encourage the maximum use of the resource and its use by the greatest

number of people or for the greatest number of uses. Water users appropriating water under state procedures should be protected in their reasonable use of water so that they may be afforded a measure of security in property investment. Only in this manner may development of western lands go forward as in the past in furtherance of the public interest.

If this Court affirms the Ninth Circuit decision, it will mean that it has sanctioned the government's rejection of reasonable alternatives, and allowed the government to in effect monopolize the entire underground aquifer to maintain the designated water level in Devil's Hole with no requirement of efficiency in use, and to avoid any compensation for the resulting impairment or destruction of the water rights of adjacent land owners. It will further mean that the federal government has succeeded in asserting reserved rights on national monument lands for a purpose which was not intended by Congress in the legislation providing for such withdrawals, and indeed, which Congress has declared shall not entail reserved rights claims exempt from state water laws. Furthermore, the reservation doctrine will have been held applicable to percolating groundwaters, a conclusion which is inconsistent with the rationale behind the doctrine, and which could significantly exacerbate the uncertainties generated by the doctrine with respect to state granted water rights in the West. Finally, affirming the Ninth Circuit's decision will mean that the federal government, contrary to the guidelines set down by this Court in the *Eagle County* case, was able to obtain a second independent review of

its reserved rights claims in disregard of the determinations of an earlier state administrative proceeding in which it participated and from which it failed to appeal. In view of these implications with respect to state water laws and procedures, the *amici* urge this Court to reverse the Ninth Circuit's decision in this case.

August, 1975

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IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1974
NO. 74-1107

FRANCIS LEO CAPPAERT,
MARILYN I. CAPPAERT, et al., Petitioners

v.

UNITED STATES OF AMERICA, Respondent

NO. 74-1304

STATE OF NEVADA, ex rel.
ROLAND D. WESTERGARD,
State Engineer, Petitioner

V.

UNITED STATES OF AMERICA, Respondent

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

Brief of Amici Curiae in Support of Petitioners

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I. INTEREST OF THE AMICI CURIAE

Throughout our nation's history it has been general federal legislative policy that the allocation of rights to divert, withdraw and make use of surface and ground waters within a state is the primary responsibility of the

state governments. [1]/ The wisdom of a national policy providing for the operation of a centralized, unified water rights allocation and regulation program by each state for waters within each state has not, to this day been seriously challenged by any congressional enactment. Indeed the most recent federal legislative guideposts point to continued support of centralized state water rights allocation and regulation systems: namely, the "McCarran Amendment" of 1952, 43 U.S.C. 666. See also *United States v. District Court in and for the County of Eagle,* 401 U.S. 520 (1971).

In recent years a new specie of water right, completely foreign to western water law, known as the federal "reserved right", has come into being. [2]/ This latter day revelation, primarily the product of the imagination, persuasive abilities and persistent efforts of the United States Department of Justice during the past two decades, offers a distinct threat to the effectiveness of long established, state administered water rights programs. Perhaps even more importantly, it threatens the integrity of real property interests, relied upon by so many, created under such state programs.

The States of Colorado, North Dakota and Washington submit this brief in order to point out their apprehensions regarding the potentially disastrous consequences of the federal "reserved right" as a matter of both national and state policy, if its bounds are not conservatively described. Amici curiae fear not only for the disruption

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[1] Congressional enactments supporting this conclusion include: Act of July 26, 1866, 43 U.S.C. §661: Act of July 9, 1870, 43 U.S.C. §661; Desert Land Act of 1877, 43 U.S.C. §321 et seq.; Reclamation Act of 1902, 43 U.S.C. §383, Federal Power Act of 1920, 16 U.S.C. §821; and Boulder Canyon Project Act, 43 U.S.C. §617 q.

[2] Perhaps the most exhaustive and scholarly discussion of the federal "reserved right" is found in 1*Corker and Wheatley, Study of the Development, Management and Use of Water Resources on Public Lands* 80-199 (1969).

of long established local economies throughout the western United States, but for future developments as well.

Certainty of water rights and the existence of a unified, comprehensive regulatory design have been integral to the settlement and economic growth of the arid and semi-arid West. If the United States is allowed to circumvent the historic function of states to determine water rights, as recognized in *United States v. District Court in and for the County of Eagle,* 401 U.S. 520 (1971), and *United States v. District Court in and for Water Division No. 5,* 401 U.S. 527 (1971), and to obtain monopolistic rights to underground waters, unrestricted by the happenings of the past, the extensive efforts of amici curiae to further develop their water right systems will prove to be largely nugatory.

Stated succinctly, the amici curiae believe that the decision of the Court of Appeals, 508 F.2d 383 (9th Cir. 1974), contains an improperly broad interpretation of the doctrine of federal water rights based on a theory of implied reservation. While the preservation of the pupfish (cyprinodon diabolis) which inhabit Devil's Hole pool of Death Valley National Monument is of national importance (and amici curiae support their preservation), that objective does not warrant a broadening of the implied reservation doctrine based upon the easy fashioned reasoning of the lower court. [3]/ This case involves only the "maintenance" of a groundwater level on federally reserved land under the Act for the Preservation of Ameri-

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[3] We note in passing that failure of the United States to establish a reserved right does not result in the loss of the public project or interest which requires the water right. It only means the United States *may* have to acquire the water right through a compensatory method. As pointed out in Trelease *Federal State Relations in Water Law, 147 1. (1971),* the reserved right is a "financial doctrine" utilized by the United States to save money.

can Antiquities, 16 U.S.C. 431. It does not consider any affirmative changing of the groundwater level under the reservation doctrine.

This court has not often opined about the implied reservation doctrine. Indeed a combination of *Winters v. United States,* 207 U.S. 564 (1908), and *Arizona v. California,* 373 U.S. 546 (1963), and 376 U.S. 340 (1964), covers the field. This court has not yet decided a wide range of issues involving the establishment of a reserved right and the nature and extent of such a right. In deciding this case, the amici curiae request that the following issues be carefully considered:

1. The burden of proof (or required showing) placed upon the United States in establishing an *implied* intent to reserve waters upon the creation of a reservation (other than reservations established by a treaty with the Indians, which are not involved here), and;

2. The special burden which falls upon the United States when such rights are claimed for ground waters.

II. ARGUMENT

GROUNDWATER SHOULD NOT BE SUBJECT TO THE IMPLIED RESERVATION DOCTRINE. IF IT IS, THE UNITED STATES MUST OVERCOME A PRESUMPTION AGAINST THE INTENT TO RESERVE GROUNDWATER AND MUST PROVIDE SUBSTANTIAL EVIDENCE OF THAT INTENT.

Any decision by this Court should consider very carefully the potential vast, deleterious consequences of extending the theory of implied reserved water rights to groundwater. Underground water supplies have assumed

a major role in the economies of amici curiae. While, as to surface waters, western water users have conceivably been on notice since *Winters v. United States,* 207 U.S. 564 (1908), that implied water rights may be appurtenant to Indian reservations and after *Arizona v. California,* 373 U.S. 546 (1963), that implied water rights may be appurtenant to other federal reservations, there has never been any indication that similar, hybrid rights in groundwater might exist. Our thesis is that, in light of history, groundwater simply does not fit comfortably within the theoretical parameters of the implied reserevation doctrine because the essential element of intent cannot be satisfied. The existence of feasible groundwater supplies, especially in early days, was not known. Lacking knowledge of this resource, rights thereto could not impliedly reserved.

Additionally, there is a sound policy basis for not expanding the implied reservation doctrine to groundwater. This doctrine, founded in equity, should not now be used as a sword by the federal government to do injustice. Perhaps at one time the implied reservation of water could be justified to prevent unconscionable consequences to those dealing with the United States or to protect the interests of the United States. However, over the past decades the equities have changed. The failure of the federal government to expressly reserve a water right can no longer be rectified by the courts without, in far too many instances, extinguishment of vested water rights, dislocation of local economies, and damage to the fabric and unity of the state water right determination and administration schemes. It is now time for this Court to amplify upon the judicially-fashioned, equitable tool of reserved rights to assure that in the future equity will prevail for all elements of society.

A foremost concern of amici curiae is the issue of the proof of the intent necessary to establish a reserved right. This Court should place an extremely heavy burden on the United States to show the requisite intent to impliedly reserve groundwaters. The element of intent has been the cornerstone of reserved rights. Meyers, *"The Colorado River"*, 19 *Stand L. Rev.* [1] (1966).

There can be no showing of intent to have reserved the groundwater unless the documents surrounding the setting out of the reservation clearly indicate that it was so intended. Such an intention should include a showing not only that the originators of the reservation knew of the existence of groundwater but that they contemplated the need claimed in order to fulfill the purpose of the reservation. Further, the United States must provide satisfactory reasons for not expressly making the reservation at the outset. Lacking any of these elements, the United States has failed to satisfy the burden of proof.

The mere establishment of a reservation as suggested by the Court of Appeals below is not sufficient, in and of itself, to also establish a claim to water rights. The reserving party's intent to reserve the waters must be shown.

> "In the *Winters* case, as in this, the basic question for determination was one of intent — . . .
>
> The intention had to be arrived at by taking account of the circumstances, the situation and needs of the Indians and the purpose for which the lands had been reserved."
>
> *United States v. Walker River Irrigation District,* 104 F.2d 334, 336 (9th Cir. 1939).

Amici curiae acknowledge the presence of two prior cases that appear to extend the *Winters* doctrine to groundwater. However, neither case has precedential value for the case at bar. In both cases, *Nevada ex rel. Shamberger v. U.S.*, 165 F.Supp. 600 (D. Nev. 1958), and *Tweedy v. Texas Company,* 286 F.Supp. 383 (D. Mont. 1968), a careful reading of the courts' decisions show that they were both based upon grounds other than the implied reservation doctrine and the discussions of the reservation of groundwater were merely dicta. *Shamberger* was affirmed due to the lack of consent to sue the federal government. *Nevada ex rel. Shamberger v. U.S.,* 279 F.2d 699 (9th Cir. 1960). In *Tweedy,* the court refused to grant reserved rights because no use or need for groundwater had been shown by the claimants; the court's remarks as to the application of the *Winters* doctrine to groundwater were superfluous.

Amici curiae urge that unless there is a showing that the groundwater resources were recognized at the time of the reservation, the intent requirement set forth in *Winters* and subsequent decisions cannot be met. The United States must bear the responsibility of establishing that the waters claimed to be impliedly reserved were actually capable of comprehension by the party making the land reservation and were actually necessary to carry out the reservation's purpose. Since groundwater resources were largely unknown at the time of most federal land reservations and rarely were acknowledged as feasible sources of supply, there should be a presumption against the existence of the requisite intent to reserve groundwater. Such a presumption is further supported by the laches of the United States in seeking to confirm its claimed water rights within a reasonable time, the disruption and inequities created by such claims and the underlying fact

that the confusion and abuses which accompany the assertion of implied water rights could have been easily avoided had the United States simply expressed its need for a water right and confirmed its right through the state system at the time of the land reservation.

The scarcity of water in the arid and semi-arid West has compelled state action to assure certainty, efficiency and maximum utilization of this keystone resource. Amici curiae have developed and refined fair and comprehensive systems for the determination and regulation of water rights. The United States threatens these prudent state actions by advancing a bastard legal theory which claims the most favorable features of both the prior appropriation and riparian doctrines of water law yet refuses to accept any of the burdens or limitations which inhere in these doctrines. The forces of equity and reason compel the application of the presumptions and burdens set out above, and the fundamental, reasonable limitations of the riparian and prior appropriation doctrines, to the claims of the federal government.[4/]

In summary, amici curiae urge this Court to view federal reserved water claims from an equitable, common sense perspective. The doctrine of implied federal water rights was an equitable, judicial response to the "absent-mindedness[5/] of the United States in dealing with Native Americans. *Winters v. United States*, 207 U.S. 564 (1908). It was never intended to be a tool of the federal government for saving money at the expense of disrupting the economies of the western states. If it is to be applied at all, this Court should command that it be done equitably

[4] Both water law doctrines require a standard of reasonableness in the exercise of a right to the use of water and both reject monopolistic rights.

[5] See, Corker, "Federal-State Relations in Water Rights Adjudication and Administration", 17 *Rocky Mt. Min. L. Inst.* 579, n. 7 (1971).

and not with utter disregard for rights established pursuant to state law.

III. CONCLUSION

For the reasons expressed above, this Court should reverse the decision of the Ninth Circuit Court of Appeals.

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